The Builder.

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The Housing of the Poor.—II.

IN a previous article we considered the Report of the Royal Commission in regard to the light which it throws on the question of rents, and the extent to which the natural conditions of supply and demand are influenced by circumstances specially affecting the poorer classes of London. The other half of the question, as we then observed, is in regard to the possibility of ensuring that dwellings of the humbler class shall be better built, and maintained in better sanitary condition, than they are at present.

We have already said that the general conclusion adopted by the Commissioners, and indicated in their Report, is that there is not need so much of fresh legislation as of more energetic application of existing legislation. There are indications here and there, however, that the Commissioners do not regard the present legal powers as entirely adequate to the situation. On page 31, for instance, we are told that in regard to cellar dwellings and the operation of the Metropolis Management Act of 1885 (and of the Public Health Act of 1875 in reference to the Provinces) "evidence was forthcoming that there were cases of cellars inhabited both in London and in the provincial towns which were dark, damp, and unhealthy, and which could not be condemned because they came within the limits prescribed by the law. In Wilmington-place, Clerkenwell, to take one instance, there were said to be cellars totally unfit for human habitation, where the walls are dripping with wet ten months of the year, which the medical officer declines to condemn because they satisfy the requirements of the law, though in the opinion of two unprofessional witnesses they fall short of them. Without citing further instances, the mere recital of these legal requirements is sufficient to show plainly that an apartment may satisfy them all and yet be destructive to health and totally unfit for habitation." Some of the evidence to this effect is summarised on page 12 of the report, and the Commissioners recommend that the provisions of the two Acts referred to should be amended with the view of securing greater height above the level of the street and larger area in front of the windows of all inhabited rooms that partake of the nature of cellar dwellings. And certainly regulations which only demand 7 ft. in height from floor to ceiling, of which *one* foot is to be above the street level, may be said to descend to the very lowest imaginable limits of sanitary legislation for such cases. The question of dampness, referred to in the above quotation, is a portion of the subject which may and ought to be dealt with by the medical officer, and the allowance of such a defect appears to imply a very careless and lax exercise of his duties.

This leads to the general subject of the powers of sanitary officials and the manner in which they are exercised, in regard to which the Commissioners evidently think there is great room for reform. The qualifications of the sanitary inspector appear to be in some cases by no means what they ought to be, evidence being given of the appointment of persons as inspectors who had given no proof of any special qualification for the exercise of the duties with which they were to be entrusted; and without recommending so centralising a measure as the appointment of such inspectors by the Local Government Board, the Commissioners are of opinion that the said Board might, "pending future legislation with regard to London government," be provisionally entrusted with a veto on the appointments of inspectors. On the whole, however, we gather that the need for greater freedom and more scope for the exercise of their powers by sanitary officials is more pressing even than the need for greater circumspection in their appointment. This subject turns up in several portions of the Report. It is most strongly taken up by Mr. Dwyer Gray in his supplementary memorandum. He strongly urges that greater responsibility should be fixed on medical and other sanitary officers, and that to this end they should be placed in a position of greater independence. In regard to what may be done even in a democratic State, in the way of despotic action in regard to insanitary property, he quotes the result of the evidence given by Mr. Meyer, editor of the *Sanitary Record* of New York, and subjoins a suggestion with the view of placing our own sanitary officials in an equally independent position:—

> "The New York Board of Health consists of four individuals, three appointed by the Mayor and one by the Governor of the State. The Mayor appoints one medical member of the Board, and one who is not a medical man; the third is an ex-officio member, being the president of the Police Board, who is appointed by the Mayor; and the fourth, also ex-officio, is the health officer of the port, who is appointed by the Governor. The Board thus constituted appears to have the most absolute power of closing and even of destroying unhealthy premises without compensation. They have gone so far that, failing attention to orders and notices, they one night employed three hundred men and demolished an unsanitary market and cleared it all away. On another occasion, finding fines ineffective, they destroyed a gut factory in a similar way, and compelled the owner to pay the cost of carting away the material of his buildings.

Until the local authority is mad eabsolutely representative of the whole body of the community, such autocratic powers would possibly not be submitted to here, but something might be done in this direction.

Much good might be effected if upon the appointment of every medical or other sanitary officer his salary, the rate of increase on that salary, and the terms of his superannuation were fixed, as in the case of civil servants, and he were appointed to hold office 'during good behaviour,'—a well-understood legal term,—and were removable by the local authority only for misconduct or neglect of duty. This change would be no interference with the principle of local representative government, while it would have the effect of freeing sanitary officers from undue interference in the discharge of their duty after they had been appointed.

The sanitary officers should, if thus freed from undue interference, be held more directly and personally responsible for the abatement of nuisances in their districts. They should be empowered to institute proceedings upon their own initiative, and, in the event of their neglect, it should be open to the Local Government Board or other central authority, on the representation of any ratepayer, to investigate their conduct in this respect, and, if necessary, to dismiss them by sealed order in the same way as the Local Government Board at present may order the dismissal of a Poor Law official who fails in the discharge of his duty."

And, when we find that one Vestry Clerk frankly said in his evidence that "he and his Vestry had never turned their attention to the Act" (the Sanitary Act and the Sanitary Law Amendment Act), and find that members of Vestries own and draw profit from house property that is in an unsanitary and overcrowded condition, it certainly seems time that compe tent sanitary inspectors (and these are by no means wanting) should be freed from mere servitude to such authorities and placed in such a position that they can act independently.

At the same time it must not be forgotten, but on one page of the Report it certainly does seem to be forgotten, that energetic action in one district may have, often must have, only the effect of changing the locality of the evil, so far as overcrowding at least is concerned. On page 28 credit is given to two Vestries,—those of Chelsea and Hackney,—for the energetic manner in which they have enforced legalised regulations of various kinds. Chelsea especially is credited with having in one year effected the clearing of 300 houses, the improvement of 129 water supplies, and of 146 drainage arrangements, as well as a number of instances of preventing the evils of overcrowding and of sleeping in cellars, and of the occupation of sleeping-rooms by more than two adults of different sexes. "The consequence of all this energy on the part of the local authority is that in the whole of Chelsea there is, practically, no overcrowding." This is very satisfactory, of course, for Chelsea; but it stands to reason that the prevention of

overcrowding in this district in the way described, must drive out the superfluous ones to another district, and that it is only a local amelioration after all. This seems suddenly to occur to the framers of the Report on the next page, where they quote the Medical Officer of the District of Hackney to the effect that "one result of the enforcement of their regulations was that persons who did not like to submit to them, or for whom there was no room without overcrowding, had to leave the district and go to others where the local authority allowed the people to live in whatever condition they pleased." This illustrates, it is observed, the disadvantage of each local authority having its own sanitary system; but if all the local sanitary systems were made identical and carried out with the same rigour, that would only result in the fact that the less desirable among the population would be unable to find housing anywhere, and be left out in the streets. That might be an efficient, though rather a cruel remedy against overcrowding; but this inevitable result of such "energy" does not seem, so far as the words of the Report enable one to judge, to have been so distinctly present to the minds of its framers as one might have expected.

The question of the possibility of building healthy dwellings with sufficient accommodation at a lower rate of expenditure than at present is the subject, as we observed, of Mr. Godwin's memorandum or postscript to the Report, the recommendations being in the direction of concrete building as a cheaper method (in London) than brick, and of concentration of houses into larger blocks so as to have a somewhat smaller initial expenditure per domicile. Something also is to be achieved by the judicious planning of the property so as to have one portion capable of being let at tolerably high rates to a wealthier class of tenants, who will thus help in making an adequate return for the outlay. On this head we may as well quote Mr. Godwin's paragraph as it stands :—

"Arrangements for housing the working-classes by some of the large employers are made abroad which are less common in England; that is, tenements are provided by the employers in connexion with the works, and various social advantages are afforded to tenants. One remarkable example of this is the establishment of M. Godin-Lemaire at Guise, near St. Quentin, in France, who has made a fortune as a manufacturer of stoves and ranges. The workmen,—700 or 800 in number,—and their families are here housed in flats, three and four stories high; nurseries for the infants and schools for the children as they grow up are provided without additional charge. The unfurnished apartments are let at the rate of 3s. 9d. per calendar month per room. A furnished room for a single man (bed made and room set right every day) costs 6s. 8d. a month, and a bed in a dormitory can be obtained at one penny a day. This, it is stated, pays the employer six per cent. It happens that I gave some particulars of this establishment at a congress of the Social Science Association held in Sheffield in 1865. A view and plans of the building will be found in the Sheffield volume of the 'Transactions of the Social Science Association.' Illustrations are also given in 'Habitations Ouvrières en tous Pays,' par Muller, 1879.

In looking for the means by which the above result was brought about, it appeared that there were retail shops on the ground-floor where anything required by the tenants, meat, clothes, &c., could be obtained at a small per-centage above wholesale prices, and which yet gave a profit, and this was considered in settling the charge for the lodgings."

The suggestions arising out of this passage are highly important, for, as we have over and over again said, unless dwellings for the poor can be made to pay, at the rents which the poor can afford, the whole thing becomes merely eleemosynary, and to say that no lodgings can be made to pay at such rents, is only to say, in other words, that there are more people on the site than can make a living, and the sooner some of them go the better for the whole.

The evidence as to the Peabody Dwellings is naturally suggested by this portion of the subject, and the Report brings out emphatically the fact that this great and well-meant charitable bequest hardly touches the real problem we are dealing with at all. The evidence summarised on page 54 is to the effect that, in the first place, when bad property was pulled down to build model dwellings, the persons dispossessed did not return to take advantage of the model dwellings; and, indeed, that they were often not a class who would be desired as tenants of a Peabody building: so that, as far as the lowest class are concerned, the action of the Peabody trustees is as inimical to them as that of the railway companies. Again, persons with large families, and persons following certain callings, such as costermongers, were not admitted in the Peabody buildings; the inhabitants of these form, in fact, a kind of working-class aristocracy. To keep the semblance, however, of providing for the poorer class, the maximum of wages to qualify for a Peabody tenant is 30s. a week, but the Report implies that this condition is often evaded, either because both husband and wife in the family are bread-winners, or because "it seems hard" to eject a well-behaved tenant from the buildings because by thrift and industry he has raised his earnings above the stipulated limit. Seems hard! why, it is the very climax of absurdity; it is against all the rules by which the relations of landlord and tenant are influenced in other walks of life. Just imagine any man, not a "philanthropist," letting house property on the understanding that if the tenant improves in circumstances so as to raise his income above a certain amount, and so become so much the more valuable and reliable a tenant, he is to have notice to quit! and even with this absurd theory (which we can well believe is not always acted on), the buildings do not house the class they were primarily supposed to be intended to benefit. Gratitude to Mr. Peabody for his large-heartedness and good intentions ought not to prevent our recognising, what portions of this Report bring out more clearly than ever, that his great bequest is a piece of fancy philanthropy, only producing perfectly unnatural and unbusinesslike relations between the Company and the tenants, and such as cannot possibly be permanently carried on upon the same principles, or regarded as any step towards a solution of the question before us.

The evidence as to the dispossessing of people in erecting these structures leads us to speak of another portion of the evidence, in regard to the effect of railway clearances on overcrowding. In reviewing Lord Salisbury's propositions eighteen months ago, we expressed an opinion that the effect of railways and new streets in leading to overcrowding had been much exaggerated, and we did not say this without special inquiry among those who had reason to be acquainted with the facts. The Report leads to the belief, however, that these influences have had somewhat more grave results than we had been disposed to think; though we still consider the effect of such public improvements in crowding up various quarters has been over-estimated. But what we were not prepared for is the evidence as to the cool and cynical neglect on the part of the railway companies of their legal as well as moral obligation to provide house-room equal to that which they remove. There are Standing Orders to this effect, and here is the summary of the Report thereupon :—

"The City Engineer of Newcastle-on-Tyne, who has had experience as a railway engineer, said that he had never known a single person to be re-housed by a railway company after clearances in connexion with railway extension. Sir Edward Watkin, speaking with greater authority, stated that he did not remember any case where a railway company, being under an obligation to re-house, had fulfilled it. Miss Hill corroborated this evidence without qualification, saying that the Standing Orders which were intended to provide for the re-accommodation of the poor are practically a dead letter. She pointed out that, even supposing they were satisfactory, and did compel the companies to re-accommodate, the companies would only be compelled to re-house the people they actually displaced, and they have a method of evading re-housing provisions by getting rid of the people privately before coming to Parliament. The witness said:—'Usually the railway company communicate with the landlords, and tell them, "We are going to take your property"; the landlord gives the ordinary weekly or monthly notice to the tenants, and long before the railway comes, the tenants have been got rid of; so that the landlord pockets the compensation, and that is what is taking place, I am told, and in spite of the advice of my fellow-workers, in Albert Buildings. In Albert Buildings, Lambeth, the tenants are told by the agents of the railway company that they will have to move, and that their best plan is to get out soon. This is before the Act is obtained. The companies, therefore, can go before Parliament, and say, "We do not displace people; there is nobody there." Therefore, it would seem to me as if the clauses, whatever they may be, should deal with the question according to whether houses that were formerly occupied by the labouring classes were displaced, and not whether the particular Act displaces them.' The Rev. W. Denton, vicar of St. Bartholomew, Cripplegate, who for a quarter of a century has exerted himself on behalf of poor people forcibly evicted from their homes by railway companies, says that the Standing Order directing a return of the number of persons to be displaced by railway companies is systematically evaded."

Sir E. Watkin, it may be supposed, would stand up for railway companies, if any one in the world did, but on this point he seems not to have had a word to say for them; and it is stated on the next page of the Report that he has stated that in his opinion there would be no injustice in saying to people who control a private enterprise, and who remove the houses of working-class people in the construction of the works, "that *they shall, before they commence their works*, erect an equivalent amount of accommodation." Let us hope Sir E. Watkin will set the example.

The very important subject of special loans of public money for the purpose of facilitating the erection of working-class dwellings is dealt with in the Report at considerable length, and we can only here summarise very briefly the conclusions arrived at. In regard to Mr. Torrens's proposal that a portion of the balance in the hands of the Post-office Savings Bank should be applied for this purpose, the Report, after careful consideration of the arguments on either side, concludes that the desirability of lending money at lower interest for artisans' and labourers' dwellings should be considered on its own merits, apart from all question of the source whence it comes: and in this we entirely concur. The Commissioners then refer to Lord Shaftesbury's Labouring Classes' Lodging Houses Act of 1851, the general object of which is "to encourage the establishment of dwellings for the working classes by giving power to localities to adopt the Act, and to borrow on the security of the rates." The Commissioners appear to endorse Lord Shaftesbury's opinion that if this Act had been put into operation "it would meet almost everything that is required at the present moment," and that a trial should be given to it, if amended in certain respects so as to make it effective. To do this, it should be made for London, metropolitan instead of parochial; it should have more expeditious powers and less elaborate machinery; and, inasmuch as in its present form the Commissioners for carrying it out would have to negotiate for every separate interest in the property they proposed to acquire, and the owner of any interest, however trifling, could stop proceedings by refusing to treat, it is expedient that provision should be made conferring upon the local authority compulsory powers to purchase land under the Act, on the same footing as the powers given to railway companies and undertakings for general local improvements. This appears to us to be a perfectly sound and logical view of the matter. Subjoined to this is a paragraph recommending that vacant land should be rated at its selling value. "At present, land available for building in the neighbourhood of our populous centres, though its capital value is very great, is probably producing a small yearly return until it is let for building. The owners of this land are rated not in relation to the real value, but to the actual annual income. They can thus afford to keep their land out of the market, and to part with only small quantities, so as to raise the price beyond the natural monopoly price which the land would command by its advantages of position. Meantime, the general expenditure of the town on improvements is increasing the value of their property. If this land were rated at say 4 per cent. on its selling value, the owners would have a more direct incentive to part with it to those who are desirous of building." The Commissioners, therefore, recommend that these matters should be included in legislation when

the law of rating comes to be dealt with by Parliament. This, we suppose, would be one of the items in the Report which have been called in some quarters "very drastic measures"; but it seems only on all fours with other measures by which private interests are made to give way to public advantage.

Akin to this subject is the question of compensation for insanitary property. The Commissioners observe that there are arbitrators who, in assessing compensation, "seem not to exclude from their minds the improvement of the property which would be due to the [improvement] scheme itself, and give a prospective value to the unhealthy property in consequence of the impression that it would be increased in value when the improvement was effected." On this head they quote and ratify the opinion of Sir Henry Hunt, that if a house is in a dilapidated condition, and it would be waste of money to repair it, the value should be calculated on the principle of what the land and materials are worth, and the claimant should have that and nothing more. Our only astonishment is that it should at this time of day be necessary formally to lay down such a principle, which is, in fact, no more than simple justice. The compensation which, we believe, has often been obtained by owners or leaseholders whose property is purchased simply because they have allowed it to lapse into a condition which is a public nuisance and scandal, amounts simply to a premium on rapacity and selfishness.

There are two other points which touch the question of giving special advantages in favour of the erection of working-class dwellings. One of these is the fact that the owners of large properties are in some cases under a disability to grant long leases except on the best terms possible. "When the Duke of Westminster's re-settlement was drawn in 1874 a clause was put in to enable him to let land for the purposes of artisans' dwellings upon other than the best terms." If this means that, artisans' dwellings not being the best form of property, the owner was to be at liberty, nevertheless, to grant leases for this class of building when public wants seemed to demand it, that is a provision not probably contrary to sound economy in fact, though it seems opening the door to a rather dangerous principle. The same, perhaps, may be said of the proposition to convey to the Metropolitan Board the sites occupied by prisons in populous districts, in order to give more space for dwellings. In the abstract it seems most desirable, since there is no necessity to have some of these prisons on town sites, that the land should be freed for the erection of dwellings; but the suggestion is somewhat complicated by the remark that "in fixing the price at which such sites should be conveyed, due regard should be had to the purposes for which they are so required." Lord Salisbury, in his own memorandum, enforces this proposition strongly, urging that to part with these sites under their market value cannot properly be called "eleemosynary,"—"it is the surrender of an increase which has become unexpectedly disposable." We confess we cannot quite follow the logic of this. It may be a very indirect and in the main harmless way of being eleemosynary, but it is none the less so in principle.

In regard to this and other suggestions for granting special advantages, the question seems to be, how far public interests demand a special departure from ordinary commercial dealing. It is on the ground of public interests only, not of class interests, that any such departure from strict economical principles becomes justifiable, or, rather, ceases to be, properly speaking, a departure from such principles. Throughout the study of this remarkable Report, which we have endeavoured to summarise and consider, and from a careful perusal of which there is so much to be learned, two considerations have been always present to our mind: 1st, that no scheme of assisting the working classes to better dwellings can be of any real or lasting advantage which is not based on commercial principles, or which attempts to provide specially for them as a class under permanent special difficulties and claiming special conditions to be made for them. How indeed, even if we admitted the principle, are we to define the class? Where does it begin and where does it end? The result of the Peabody bequest is surely enough to teach every one the difficulty of arranging matters so. Secondly, that the real initial difficulty and evil lie far behind the plane of enquiry of the Royal Commission. They have made valuable suggestions for securing that justice should be done to the industrious among the working classes, and that they should be protected from the consequence of private rapacity and of official neglect; but the root of the overcrowding evil lies in overpopulation, vice, idleness, and want of foresight, and it will not be cured in a generation, commission we never so many Commissions. It is in the slow but certain influence of better education that the remedy will be found at last. All we can really do at the moment is to curb those who are wronging their neighbours, to spur those who are neglecting their duties; taking heed that in doing so we do not sap the moral and material strength of those whom we seek to benefit, by any hasty measure of false philanthropy:—

> "'Twill be recorded for a precedent;
> And many an error, by the same example,
> Will rush into the State."

Since the above was written, the second portion of the Report, dealing with the question in Scotland, has come into our hands, but it is short and of very minor importance in comparison with the first portion. It goes to show clearly that the difficulties in London are exceptional and peculiar, and that the problem does not present itself in any such dire and perplexing dimensions elsewhere.

SCULPTURE AT THE ROYAL ACADEMY.

THE largest sculptural work in the Academy this year is Mr. Boehm's bronze group of "St. George and the Dragon," in the centre of the octagon. To his treatment of this very well-worn theme the sculptor has brought spirit, fine modelling of man and horse, effective grouping of the whole, but not much energy or greatness of conception. The St. George, who is nude, not armed (rather at variance with our associations with knighthood) has quitted his reins to drive the spear into the dragon with both hands, while the horse rears in a rather *ménagé* attitude. The dragon is carefully studied; he is a clever compound of lizard and serpent; his head is the flat one of a poisonous snake, and he twines his forked tongue round the shaft of the spear, which he catches in his jaws; behind the wrinkled eyes grow short horns, increasing the uncanny aspect of the head; but his limbs, where the lizard element comes in, are feeble and spongy-looking, and one does not wonder that a horse prances over him without much difficulty. The dragon, however, shows the most invention of the group, which, as a whole, can hardly be said to be imaginative, or to add anything intellectually to our conception of the legend, but it would make a fine monumental object for a central position, say in the courtyard of a palace.

Unquestionably the finest piece of modelling in this year's sculpture is Mr. Lawson's "Spartan Dancing Girl" (1,985). This is essentially a sculptor's subject; it is simply a modelling of the nude figure in a happy moment of repose; and in its complete representation of bodily structure, firm, well knitted, not without beauty, but striking one rather by its nervous energy, it is one of the best things of the kind that has been seen in the Royal Academy. We shall be able to give an illustration of this shortly. In illustration of the kind of power by which it is marked, just let the spectator compare it with the nerveless, mechanically-rounded, and polished limbs of such a thing as the "Ganymede" of Herr Kühn (1,994). The Germans, however, are behind every one in sculpture now; the French are before every one else, and we are a long way behind them; but Mr. Lawson's figure is one of a class of works which will help us to make up our position, and we hope it will have worthy successors.

Another very clever and original work in the octagon-room is Mr. Mullins's "Autolycus, son of Mercury" (1,990); not Shakspeare's Autolycus, the name being merely used to typify the character of a petty depredator. This is a nude figure of a youth, with a most amusing and cleverly-wrought expression of roguery in his countenance, and one hand drawn back preparatory to making a snatch at some piece of booty, in accordance with the sentence quoted,—"A snapper-up of unconsidered trifles." The whole figure is what one might call the idealised pickpocket, or what may be called the amusing side of him; it is half doubtful, perhaps, whether the subject was worth so much ability, but it is very clever and really original.

The pathos of the heavy German,

> "With his sentimentalibus lacrymæ roar 'em,"

is delightfully exemplified in a work which on first view appears like a colossal beetle executed in plaster, but which on further examination is found to be a mass of drapery with a man doubled up under it, and which is entitled "Overwhelmed" (1,981), with the addition, "O Thou, Eternal One! now let me die." This is the work of Herr Oscar Junck, who seems to have said to himself, "Go to! let us be sublime!" It is an easy way to be sublime, to hide all the figure and even the face out of sight, and let the spectator only see the cloak and the beard: you thus get rid of all the chief technical difficulties, and at the same time leave the imagination of the spectator entirely unfettered. Herr Kummer's "Lady Macbeth" (1,977) is better than this; the drapery is fine, but this and the heavy mass of hair overshadowing the brows are so much the repetition of a manner which pervades German sculpture that one is quite tired of it; and the attitude, though expressive, is somewhat too violent for sculpture. Two terra-cotta studies on either side of this, have a good deal to recommend them; one is Signor Lucchesi's "Oliver Twist" (1,975), the countenance of which is truly pathetic; the other, Miss Curtois's "Prayer" (1,797), a figure of a young girl kneeling, more expressive in attitude than in countenance, but a very pleasing ideal work. Signor Fabbrucci's "First Love" (1,987) is a pretty child group; and among the portrait busts in the octagon may be noticed the "Earl of Beaconsfield" (1,973), by Mr. Adams-Acton; the "Marquis of Salisbury" (1,974), by Mr. Theed; "Mr. Henry Fawcett" (1,988), and the "Archbishop of Canterbury" (1,995), by Mr. A. Bruce-Joy. All these are busts with much character, and worthy of their subjects. There must have been a great weeding of busts this year, if we compare the generally good average of them with the crowd of tame and feeble things that we have so often found at the Academy.

In the lecture-room are two recumbent monumental effigies, which seem almost as if made to be companion works to each other, and which we publish as such, at all events, in this number.* These are Mr. Woolner's "Lord F. Cavendish" (2,130) and Mr. Armstead's "Dean Close" (2,132). Both, as will be seen, have the simplest of *motifs;* the portrait head and the cere-cloth covering the body, the form of which is only partially indicated beneath its folds. Mr. Onslow Ford sends the marble of his statue of "Mr. Irving as *Hamlet*," the model of which was before exhibited here, but we dwell with more pleasure on his other work, "In Memoriam" (2,084), a sleeping figure guarded by cherubs, the whole in very low relief, and set off with delicate ornament of a free Renaissance character also in low relief, and for which we fancy that a remarkable large circular monumental panel in the South Kensington Museum has furnished some hints. The attitude and expression of the figure are very beautiful, the whole is a most refined work and quite on one side of the ordinary paths of English sculpture. Beneath this is another really clever and superior work, three

* See this week's illustrations.

small panels in alto-relief (2,086–7–8) by Mr. Harry Bates, illustrating subjects from the "Æneid,"—the first, "Dido looking after the departing ship"; the second, "Then, indeed, Æneas weeps"; and the third, "The form of the God returning with the same aspect, appeared to him in his sleep." These small sketches, for they are little more, are works of imagination; they illustrate the highest use of sculpture, and lead us to look with interest to what their author may accomplish in future.* We shall give an illustration of the work shortly. Mr. S. Fry's terra-cotta group of mother and child, called "Play" (2,113), is one of the class of subjects which Dalou may be said to have given the suggestion for, and is successful in uniting sculpturesque quality with natural realistic action and expression. Mr. Greenough's "Circe offering the Cup to Ulysses" (2,134) is a life-size marble of high finish of execution, but not remarkable otherwise, though the face has a fine expression of confident and deceitful triumph, which is in keeping with the idea; certainly this personage is more like Circe than Mr. Collier's painted Circe, to which we have before referred. Mr. Hamo Thornycroft's wax statue (small scale) for an equestrian statue of Edward I. is fine and monumental in character, and the horse is posed with a look of massive strength in his attitude, which comports well with the heavy armoured figure he carries. With Mr. Calder Marshall's "Eve" (2,114) we must confess we are disappointed.

Among smaller works round the wall of the lecture-room are several of considerable interest. We may instance a charming ideal bust by Mr. Armstead, entitled "Maidenhood" (2,069), a head not strictly beautiful, but full of expression, and marked by broad and free execution. One of the cleverest of the smaller things is a bas-relief of "Leda," by Mr. Montford, who sends also a terra-cotta statuette of a reclining figure of a "Tired Dancer" (2,092-4); the former is admirable from an artistic point of view, but it is about time that this very indecent Pagan legend were dropped as a subject for art. It was well enough for Michelangelo to do it in the Renaissance period, which was a Pagan and an indecent epoch in spite of all its genius, and his painting is too remarkable and characteristic a legacy of the age to wish it undone; but such subjects are, at any rate, anachronisms now. Mr. Mark Rogers sends a head of the Centurion (2,071): "I am also a man in authority, having servants under me," &c., which is a fine conception. Mr. W. Couper's two delicate medallions in very low relief, "A Vision," and "Before the Scenes" (2,047, 2,064), should be looked at; as also Mr. Mark Roche's "David entering Saul's Tent" (2,015),—is not David's right arm, by the way, rather long?—and Miss Rope's "David playing before Saul" (2,029), a very refined low-relief work. There are two busts of Gordon, neither of them satisfactory; a grotesque and wild-looking one of Mr. Ruskin, by Mr. Conrad Dressler (2,009); a powerful one of "The late W. Dockar" (2,021), by Mr. Lawson; a very pleasing low relief medallion of Lady Watkin (2,025), with a decorative effect produced by a lace head-dress carved in low relief; a very pretty and lively little alto-relief, by Mr. J. T. Williamson, called "Spring" (2,033), three little nude boys twining flowers; an expressive child statuette, "Pussy has scratched my Finger" (2,035), by Signor Lucchesi; an admirable miniature study of a tiger (2,072), by Mr. Allen Hutchinson; a medallion portrait of Mr. John E. Sandys (2,080), by Mr. Henry Wills; a bust of Gray, the poet (2,090), to be placed in the hall of Pembroke College, by Mr. Hamo Thornycroft; a medallion of Mrs. Mirrilees, by Mr. Woolner; two small medallion portraits of Miss Ellen Terry and Miss Mary Anderson (2,115-7), by Mr. G. M. Curtice, admirable likenesses these; and a clever *repoussé* silver panel, by M. Morel-Ladeuil, of the wedding scene from "Much Ado" (2,116).

* We understand that the Royal Academy had the intention of purchasing this work with the Chantrey bequest, but it was technically unavailable on account of its not having been executed in England.

There is no great predominant work of the year, but there is in the sculpture of this year more to interest and more which promises that we are slowly progressing towards a better notion of what sculpture should be and what it is meant for, than we have observed in recent Academy exhibitions. The stupidity and indifference of the public about sculpture are the great obstacles to its advancement among us; but this, again, re-acts on the sculptor, as many melancholy examples have shown. It is at least something to record that there are fewer such examples or warnings this year than is usually the case.

THE RAILWAY COMMISSIONERS.

A SHORT time ago the President of the Board of Trade was asked in the House of Commons whether, in his opinion, the Railway Commissioners had jurisdiction now to entertain questions of undue preference as between foreign goods and English goods. Mr. Chamberlain replied in the affirmative. The fact of this question being put in the House is an indication that the functions of this important body are not generally known, and a few particulars as to their constitution and duties may prove of interest.

Leaving the preference-rate question until later, it may be stated that the Commission came into existence in 1873, and consists of three members. Each of these is supposed to be experienced in railway law, or practically acquainted with the details of railway business, and thus thoroughly competent to give judgment in the cases brought before them. The appointment of such a tribunal had long been recognised as a necessity; for, without reflecting for a moment on the capability of the Court of Common Pleas, or of Her Majesty's County Court Judges, to deal with railway, as well as other disputes, it was very seldom that the companies did not appeal against an adverse judgment, and by taking the case from court to court, make it ruinous to the litigant, although he might be successful throughout. The power of appeal from the decision of the Commissioners is naturally limited, and, although the expense involved in bringing a case before them is considerable, there is much more chance than formerly of its being brought to a speedy and satisfactory issue. With a view of still further lessening the cost of litigation to individuals in cases brought before the Commission, a clause was embodied in Mr. Chamberlain's Bill of last year, dealing with railway matters, giving a *locus standi* to Chambers of Commerce, &c. This was one of the most useful provisions of the Bill, and it is unfortunate that this, at least, has not become law. It is, however, only a question of time, as it is probable that the Bill, or something similar, will be re-introduced, now that the attempt of the railway companies to settle the matter has proved abortive. However, the law as it at present stands, makes certain provisions tending to relieve individuals of the onus of laying complaints of contravention of the Acts by the companies before the Commissioners. A clause in the Act of 1854 authorised the Attorney-General to take proceedings in cases in which the provisions of the Act were violated; but that of 1873 goes further, and permits complaints to be made not only by a person aggrieved, but by any person appointed by the Board of Trade, or by a municipal or public corporation, if furnished with a certificate of the Board of Trade. This, as Mr. Chamberlain explained in the House on April 30th last, gives better facilities for the public to have their grievances brought before the Commissioners direct, than by leaving the Attorney-General to watch and enforce the due carrying out of the provisions of the law.

The duties of the Commissioners are mainly to see that the existing Acts relating to railways are duly observed, and to hear and determine any complaints of contravention of them. These Acts were in a manner consolidated by Mr. Cardwell's Act of 1854, which may be said to be the most important enactment on the subject in the statute-books. This measure, among other useful clauses, contains the following, which is comprehensive enough to justify Mr. Chamberlain's reply as to the jurisdiction of the Commissioners in cases of preference.

"Clause 2.—Every railway company shall, according to their respective powers, afford all reasonable facilities for the receiving, forwarding, and delivering of traffic upon and from the several railways belonging to or worked by such companies respectively, and no such company shall make or give any undue or unreasonable preference or advantage to or in favour of any particular person or company, in any respect whatsoever, nor shall any such company subject any particular person or company, or any particular description of traffic, to any undue or unreasonable prejudice or disadvantage in any respect whatsoever."

This seems to include undue preference as to transit, accommodation, or charge, the words, "in any respect whatsoever," leaving no room for exceptions. Nevertheless, it would appear that even this was not clear enough; for in the Act of 1873, appointing the Commission (in which the provisions of Mr. Cardwell's Act are incorporated), there is a section commencing "Whereas it is expedient to explain and amend the said enactment," referring to and enlarging upon the clause just quoted.

Another clause in the Commissioners' Act provides that they may, on the application of any person interested, make orders requiring a railway company to distinguish in their rate-books how much of each rate is for conveyance, use of railway, locomotives, carriages, &c., and how much for other expenses, specifying the nature and detail of such other expenses. This has proved very serviceable, but the principle might with advantage be extended,—indeed, in the discussion on terminals caused by the Bills just abandoned by the railway companies, a step in this direction was proposed. This was to exhibit at each station the amount claimed for terminals at that station; but it would seem desirable for each station to be furnished with a list of the terminals charged at all the stations. With this, and a uniform classification and scale applicable to all companies, a rate could be fully tested without having recourse to the Commissioners, unless still more detail was required.

The powers of the Commissioners in "terminals" cases is defined in Clause 15, which may be quoted at length:—"The Commissioners shall have power to hear and determine any question or dispute which may arise with respect to the terminal charges of any railway company, where such charges have not been fixed by any Act of Parliament; and to decide what is a reasonable sum to be paid to any company for loading and unloading, covering, collection, delivery, and other services of a like nature. Any decision of the Commissioners under this section shall be binding on all courts and in all legal proceedings whatsoever." It will be noticed that these are what may be termed "handling" services, but the companies claim the right to make additional charges for all terminal accommodation, including all station buildings, &c., and expenses in connexion therewith, these charges being distinguished by the term "structural" terminals. In a recent case in which this question was involved, it was elicited that the following are among the items included in claims for structural terminals, in addition to goods sheds, warehouses, and offices:—Land, earthwork, ballast, turntable, weighbridge, gas, &c.; interest on capital expended upon and the cost of maintenance and renewals of the above, together with rates and taxes being reckoned as the estimated cost per annum. This is divided by the tonnage dealt with during the year, thus producing a rate per ton. In the case referred to it was 11·72d. per ton! Now, as explained in our article of March 7th last, the companies' Acts give them no power to make charges for accommodation of this description, and it is therefore held by the Commissioners that all such charges are included in the amount they are

authorised to demand for conveyance ; but at the same time they are decidedly of opinion that it was really the intention of Parliament to allow something additional for terminal accommodation, though this does not find direct expression in the Acts. This has always been a sore point with the railway companies. The Commissioners have, of course, administered the law as they found it, and their judgments in these cases have invariably been against the railway companies. The main object of the latter in introducing their Rates and Charges Bills was to get the law on this point altered in their favour ; but by adopting wrong tactics and asking for too much, they have got nothing, and the law remains as it was. The Commissioners have had many cases coming under this clause brought before them, and it has been shown that the most unreasonable charges have been imposed for terminal services and accommodation, the opponents of the Rates and Charges Bills being thereby furnished with powerful arguments against the legalisation of these charges, though there is no doubt that the companies are justly entitled to some payment in this respect.

The Commission only had a five years' lease of life, and although at the expiration of that term it was again renewed, it has proved itself of sufficient value to be constituted a permanent tribunal. The majority of cases, such as are brought before them, formerly went to the Court of Common Pleas, and the confidence of railway litigants in the ability of the Railway Commission is proved by the fact that many more cases are brought forward now than before their appointment. It cannot be doubted that a court dealing specially with railway matters would be more likely to bring them to a satisfactory issue than the Court of Common Pleas, with its varied practice, and the appointment of the Commissioners as a Court upon a similar footing to that just named would be a decided advantage. This will, no doubt, be accomplished when our legislators have a little more time to devote to internal affairs ; for railway matters have been brought so prominently before them this session that they are not likely to be lost sight of.

NOTES.

SCIENCE, which is as restless as politics in changing old things for new, is pressing hard on our lighting and heating systems, and will soon end by transforming them altogether. Our gas, the purveyors of which have regarded with comfortable complacency the attacks of electricity, has just received a rude shock from a chemist of considerable note, Professor Armstrong. In a paper read before the Iron and Steel Institute, he remarked that the present mode of making illuminating gas was irrational ; the yield was very small in proportion to the amount of coal carbonised ; the gaseous product was poor in quality, owing to the high temperature that prevailed in the retorts ; while the coke was also of low quality, and the operations clumsily conducted. The public was slowly awaking to the fact that it was supplied with very indifferent illuminating material, and the Professor expressed an opinion that consumers would soon insist upon something far better, which could be used in much smaller quantity, and the evils arising from gas-burning would be thereby diminished. As to the other question, viz., fuel for heating, Admiral Selwyn has been heading a crusade at the United Service Institution against the use of coal on board of the ships of the royal and mercantile marines, as being bulky, costly, wasteful, and dirty. He advocates the employment of liquid fuel, which is already in vogue with the Russian fleet, and certainly has many advantages. There is great economy ; no change is required in engines and boilers, and comparatively little adaptation of furnace ; a whole army of stokers and trimmers is dispensed with ; the ship can receive her supplies at sea or any where, without resorting to a coaling station ; there is no nuisance of dust and ashes, nor any liability to spontaneous combustion. The greatest point, however, is that 46 lb. of water, according to experiments, can be evaporated with 1 lb. of fuel, giving power for full steaming for twenty-four days, whereas now that power is limited to four days. As each ship in the navy could remain on her station twice as long with liquid fuel as with coal, the saving on the expenses of the whole fleet would be about twelve millions sterling per annum. This is a serious and important matter, and we cannot see why the same application should not eventually be made to fuel for manufacturing purposes and domestic heating. Notwithstanding the warnings of geologists and mining surveyors, the output of coal increases every year, and little effort is made to check the waste and recklessness. As we have not, like the lucky Pittsburg folk, reservoirs of natural gas underneath our manufacturing towns, it is worth considering whether we cannot find some economical substitute, in the shape of liquid fuel.

THE evidence of Professor Sullivan, the President of the Queen's College at Cork, before the Select Committee on Irish Industries, described the neglected state of what might readily be made an unrivalled system of inland waterways. All the various rivers and canals, the President pointed out, had locks of different dimensions, so that, as to commercial utility, "the whole thing was a joke." The canal system of Ireland, according to the evidence given before the Select Committee on Canals [252, 1883, p. 232], covers a length of 775 miles. On 4,332 miles of inland water-way in England there exist, according to a table published by the Institution of Civil Engineers (Proceedings, vol. 76, p. 175), seventy-two sizes of locks, ranging from 45 ft. to 165 ft. in length, and from 6 ft. 10½ in. to 37 ft. in width. The Irish irregularity thus falls short of that which obtains in English waters. The capacity of a canal of ordinary section for traffic, taken from work actually done in England, has been calculated as two millions of tons of net load conveyed one mile in a year. The maximum work done on an English railway of mixed traffic, in the same time, was 1,410,000 tons conveyed one mile. But the railway cost more than five times as much per mile as the canal ; and while the English railways on the average have not established a higher rate of net earning than 4·3 per cent. on the capital, the Trent and Mersey Canal has earned as much as 30 per cent. net profit in a year, and the Birmingham Canal a higher rate of dividend.

ALTHOUGH the traffic of the Irish Railways is very low, the result of their working is shown by analysis to bear comparison with that of richer and more populous countries. The gross receipts on the railways of the United Kingdom in the last year analysed in the "Index to our Railway System," were 3,551*l.* per mile ; those on the Irish lines in the same year being 1,257*l.* For England alone the receipts were 4,220*l.* per mile. But the capital spent on the English lines was 46,113*l.* ; while that for which the Irish lines have been constructed was 14,187*l.*, stated at per mile in each case. And, notwithstanding their small traffic, the Irish lines were worked rather cheaper than the English ; the coefficients of working cost being 53·97 per cent. of gross receipts in England, and 53·55 per cent. in Ireland. The outcome of all this is, that the Irish lines, out of a gross traffic amounting to 8·15 per cent. of their outlay, earned a net profit of 4·17 per cent. over their whole capital ; while in the same year the English lines earned 4·38 per cent., and the Scottish lines only 3·99 per cent. net on their respective capitals. It is thus obvious that the judicious mode of laying out the Irish railways, for which the country is mainly indebted to the late Field-Marshal Sir John Burgoyne, affords a sound basis for a remunerative traffic, if Irish industry were to revive. The effect of a very small traffic in diminishing net returns is illustrated by the fact that while every railway servant in France earned 207*l.* in a year (dividing gross revenue by total number of men employed) and in England every one earned 193*l.* ; in Ireland, in 1883, every person in the employment of the railway companies earned only 164*l.*

THE reduction of 10 per cent. in the wages of the colliers appears to be becoming general throughout the country ; and the Lancashire Miners' Confederation have decided to call a National Conference of Miners on the wages question. In South Yorkshire 2,000 miners are now working at the reduced wages ; and the masters state that at the present price of coal it will be impossible to work many of the pits even on these wages. Under these circumstances, attention is being roused to the fact that out of a strictly limited quantity of coal we are now exporting upwards of twenty million tons per annum for prices that hardly keep body and soul together among the coal winners. Our export price per ton for coals in 1883 was less than half what it was in 1873, and is now probably lower. It was the estimate of the Coal Commission in 1871 that if the annual increase in the demand for coal, which was then tolerably steady, were to continue, our coal supply would be exhausted in 110 years. On the appearance of such calculations, the price of coal rose, and the rate of consumption was materially checked. Great prosperity accompanied the rise in the price of coal, but it is not clear what was the true source of the sharp demand then made for our produce at continually rising prices. At present our home consumption of coal is declining, although the exports, at an inadequate price, are rapidly increasing. It does not seem to be the English collier or coal owner who derives most benefit from this increment.

THE Architectural Association have issued to members a report of a Committee for "Amending and Consolidating the work of the Association." Among the suggestions are that two defined divisions be formed, the "Elementary Division" and the "Advanced Division," and that a "Committee of Advice" be elected each Session, whose duty it should be to recommend to new members the particular course of study which it would be advisable for them to pursue. This is an admirable idea, and a proposition made in a most generous and unselfish spirit. The committee particularly ask members to consider and give their views on proposition 19, how the advantages of the Association may be best extended to country members. There is one way we could suggest, but it would be a troublesome one for the sub-committees and visitors of classes, viz., criticism of designs in these various classes by letter. The question of publishing the papers read at the meetings has also been mooted, and of course this would very likely open up the question of raising the subscription. The latter is a point that the Association can best judge of for itself. We may point out that there is the alternative of publishing a selection only of the papers read, those that are the most practical and likely to be most permanently valuable. In some of the papers read we have noticed a great deal of discursive writing, not always in the best literary form, which would certainly not be worth printing in a permanent form. Of course there are other societies of which the same may be said.

BY an odd coincidence, just after writing the above remarks, we receive the circular of the Institute of Architects, announcing a proposal to be submitted by Professor Kerr at the next meeting (June 8th) for conducting "the higher operations of the Institute" by means of four standing committees, taking charge respectively of the Departments of "Art," "Science," "Literature," and "Practice." We will not dismiss the idea in a hurry, but it comes in a "questionable shape." Architecture is a combination of Art and Science, and Practice is intimately bound up with both : why split them up ?

WITH reference to the case of the Metropolitan Board of Works *v.* Mowlem & Co., reported in another column, and in which notice

of appeal was given by the Board, it is to be hoped that the decision of the Divisional Court will be pressed for as quickly as possible, as the present state of uncertainty as to the law on the subject has not only caused great loss to some, but has also prevented spaces being used which otherwise might be utilised and made valuable.

IN Rome there is much building going forward in all directions, but principally in the district between the churches of Santa Maria Maggiore and San Giovanni in Laterano. There is a large square which promises well,—the Piazza Vittorio Emanuele,—and the new streets are being made much wider than was the custom in past times. One will be enabled to walk on the pavement without fear of being jammed by a passing carriage. If these streets turn out like the Via Nazionale, the Romans ought to be congratulated, for this is the handsomest street in Rome,—although much good work was destroyed to make it. It contains two recently finished buildings worthy of note, although of widely different character, the American Church, the tower of which is a fine design, and the new Museo di Belle Arti, a handsome Classical elevation. Mr. Street's English Church, in the Via del Babuino, is progressing, but apparently rather slowly; the walls are nearly completed throughout, but the roof is not commenced. It is curious to see windows and arcading of English character side by side with the nave piers, which are square in alternate layers of yellow Siena and red Perugia marbles; and between the larger piers a single column of green marble. The effect will be very rich when finished.

ACCORDING to the *Wochenblatt für Baukunde*, the first portion of the work of restoring the Palace of Diocletian at Spalato has just been completed under the direction of Professor Alois Hauser. The interior, with the exception of some trifling work to be done at a later stage, is now restored. The galleries and the organ-loft which defaced the building have been removed; the pulpit and the two Gothic altar canopies have been restored, and the whole interior has been cleaned,—that is to say, simply washed down. The effect of the whole space, we are told, which now appears much larger and wider than formerly, is such that the beholder cannot sufficiently admire the beauty of proportion and the grandeur of the monumental Roman architecture. Perhaps some "beholders" would have preferred it, dilapidations included, before the trail of the Teuton was over it all.

IT is matter of great regret that chance should have led Correggio to paint his magnificent domes in what is one of the dampest towns in Italy. It is only at Parma that the master is seen in all his greatness, and his work in the domes of the cathedral and in the church of San Giovanni Battista in that place is rapidly perishing. The greater part of the funds of the fathers of the latter church have been confiscated by the Government, so that little can be done to prevent injury. The brick pavement, however, which is reeking with damp, is about to be replaced with marble, in the hope of arresting the decay.

THE magnificent choir-stalls in the Duomo of Perugia, so long the admiration of architects, are being restored, so far as the intarsia work is concerned. Whole panels have been cut out and replaced with new, which, as regards the execution, is about as bad as the Italians know how to make it. There is none of the refinement and delicacy of the old work about it; in fact, the work is about up to the level of the English jobbing carpenter.

EVERYWHERE restoration, — and that generally of the very worst kind,—meets the eye of the traveller in Italy. What the lovely Upper Church of the Monastery of San Francesco of Assisi will be like when it has passed from the restorer's hands,—to judge from what has been already done,—Heaven only knows. There is much to be thankful for in the fact that the greater part of the old work in the nave is still fairly perfect. Perhaps, however, this is only all the more reason why, from an Italian point of view, it should be restored.

IN reference to the Metropolitan Board of Works Bill, Mr. Bryce moved, on Tuesday last, that "The Board shall, under the powers conferred upon them by this Act, acquire the whole of the piece of land in the parish of All Saints, Poplar, No. 2 on the deposited plans (Greenwich Ferry, plan No. 4), and in the book of reference, page 68, and shall lay out, or cause to be laid out, as a public-garden or recreation-ground, so much of the said piece of land as shall not be required for the purposes of the ferry between Greenwich Pier and Bark-street, Poplar, and the purposes mentioned in Clause 12 of this Act." The Bill, he said, took powers for the construction of a ferry between Poplar and Greenwich, and the piece of land, which was now a garden, would be only partially required for the uses of the ferry. Sir James Hogg resisted the motion on the very poor ground that it would add to the cost of the ferry by preventing the use of the site for building purposes. The clause was carried, however, by a majority of 136 to 50. It is gratifying to see that the Legislature seems alive now to the importance of open spaces and recreation-grounds in London.

THE managers of the American Exhibition which is to be held next year have secured what they consider "the *best*" site in London for their enterprise, a site of twenty acres at Earl's Court. The station for the District Railway will be in the Exhibition grounds, and "every railway in Great Britain," so we are assured, "will have facilities for immediate and direct connexion with the Exhibition building." The promoters evidently mean to make a big success. From the Report of the Director-General, Mr. Whitley, we learn that already more space has been applied for than will be available, but the management will continue to receive applications up to September 30th of this year, and then we presume the rule of *detur digniori* will be followed. From a paragraph in the report it appears to be supposed that, as we have had the "Fisheries," the "Healtheries," and the "Inventories," so the American Exhibition will be popularly known as the "Yankeries." We have already predicted that the exhibition is likely to be an exceedingly popular one, and it seems also likely to be a very large concern, and in fact, to apply the words of Artemus Ward, "The American eagle will be screaming all over the length and breadth of this bright and beautiful land."

THAT admirable French "Monthly," the *Revue Générale de l'Architecture*, is exceptionally good this month. Among its illustrations are some fine pieces of bold Renaissance ornament from Le Pautre, and a view and details of the beautiful Classic monument to Michelet, the historian, in the Cimetière de l'Est at Paris, designed by M. Pascal. There is a refinement and a variety of inventive fancy in the best of the contemporary monumental work of this type in France such as we must sadly confess we rarely see in England.

THE Duke of Bedford, we are informed, has made a donation of 50*l.* to the funds of the Society for the Protection of Ancient Buildings. This is an admirable stroke of policy on his Grace's part. There have been for a long time past more or less indignant outcries against the state of Covent Garden and against the market building itself, as an anachronism which calls for rebuilding. Against such demands on his purse the Duke of Bedford has now secured the valuable support of a Society which will allow nothing that exists, however bad and worn out, to be removed, and which will support the maintenance of the *status quo* in Covent Garden, not on the mean and sordid ground of economy, but on the highest moral and æsthetic principles.

UNDER the characteristic and grandiloquent signature "A British Matron," some rather ill-educated lady has been allowed to write a very silly letter in the *Times*, inveighing, on "moral" grounds and in no measured terms, against the nude paintings at the Academy and the Grosvenor. The writer would have done well to remember the rebuke once administered to a lady of similar prejudices, who observed to the company who were looking at a picture, that "it was a very indelicate picture," and was met by the comment that "the indelicacy was in the remark." We have ourselves criticised some paintings of the year, not on the ground of serious impropriety (which, in the case of any Academy paintings of this year, must reside in the spectator rather than in the painting), but on the ground of the prosaic incongruity of representing nude figures in no ideal connection, but as if they were subjects from common life. So far some attack on some of the Academy paintings of the year might have been justified. But as the "British Matron" (we like that phrase!) includes the Grosvenor Gallery in her censure, it is to be presumed that she numbers Mr. Watts's "Love and Life" and Mr. Mitchell's "Hypatia" among the things which "a modest woman cannot look on without a burning sense of shame." If so, there is only one conclusion possible; the "British Matron," whoever she may be, is a vulgar-minded idiot. It is little to the credit of the taste or judgment of the *Times* to have published such a letter, and we are glad to observe that "An English Girl" made, in the succeeding issue of that journal, an indignant protest against it.

ARCHITECTURE AT THE ROYAL ACADEMY.*

THERE is no drawing in the architectural room which can for a moment compare for beauty of draughtsmanship with Mr. Waterhouse's design for the National Liberal Club (1,803). His power of composition, and feeling for harmonies of warm colour, — the swift dexterity and *abandon* of his fearless brush were never seen to greater advantage. In these respects he is admittedly without a rival. The design in question has been so recently illustrated in these pages that a minute description of its features is unnecessary. Its style could not be described in a word. The pervading feeling is that of a free Classical Renaissance, but the quasi-machicolations of the cornice, the Romanesque arches of the tower, the Venetian character of the traceried arcading of the Belvidere, and several minor points of detail, remove the work from any known style. We are far from saying that this is a fault. On the contrary, we are strongly of opinion that a puritanical adhesion to one particular style, and even to a particular phase of a particular style, has done much in the past to rob our modern work of that picturesque quality which is so much admired in the ancient. We have too scrupulously avoided those incongruities which are a legitimate source of effect, and our work has been uninteresting in proportion to its self-imposed and straight-laced propriety. But while yielding the fullest admiration to the cleverness which this design everywhere displays, we cannot refrain from expressing our disappointment with it as a work of art. The object of the building is distinct and unique. It is to be the home and head-quarters of one of the great parties in the State. Not exclusively for the aristocracy thereof; but for that great multitude of educated men throughout the country who hold and profess in political matters the Liberal creed. It should therefore have a distinctive and appropriate character,—and such a character it would not have been difficult to impress upon it. Fine architecture is not a mere matter of window and wall-space,—of string and cornice,—of pilaster and archivolt. "Every building erected for public assemblage was considered incomplete by Greek and Goth unless it were adorned with sculpture or painting designed in accordance with the purpose of the building." Mr. Waterhouse has given us a building which will indeed be a jewel in comparison with the depressing mediocrity of its neighbours, but has he risen to the full conception of the task committed to

* See pp. 607, 650, 684, *ante*.

him? Has he, in fact, given us a building eloquent of its *raison d'être?* Our Tory friends,—and we are thankful to say we have many such,—will perhaps reply in the affirmative. They will say that the Liberal party is a heterogeneous jumble of discordant elements, and that in scattering varied and inconsequent details over his work Mr. Waterhouse has exactly hit off the idiosyncrasies of his clients. Into this side of the question we do not intend to enter.

"Politics we bar,
They are not our bent."

Personal feeling apart, it was the bounden duty of the architect to put his clients' case as strongly as possible, bringing prominently and permanently before the public those momentous achievements which for good or ill have marked the progress of the Liberal party, and on the strength of which they claim the suffrages of the nation. Portrait-sculptures of such statesmen as Peel and Palmerston, Cobden and Lewis, Mill and Fawcett, not to mention the names of those still happily living, might reasonably have adorned its walls; and surely there are dramatic incidents connected with the repeal of the Corn Laws, the passage of the First Reform Bill, and the more freshly-remembered Education Act, which would have provided our sculptors with themes worthy of their skill, and fit for record in the plastic and enduring terra-cotta. For all this we look in vain. The nice art which gave voice and vitality to the Natural History Museum is unhappily dormant. Its exercise would have given us a companion structure having equal claims to our regard and our gratitude; instead of this we are put off with a merely facile combination of dumb lines and dead surfaces.

The architect had a great opportunity,—

"It might have happen'd but once
And he miss'd it,—lost it for ever."

We think that we have some reason to complain of Mr. Waterhouse's treatment of himself, and can only deplore the inexplicable and disappointing result.

No sound judgment can be formed of Mr. Edis's design for the rival Constitutional Club from his drawing of an inconsiderable fragment of the entrance-front (1,835); but, so far as can be ascertained, he also has taken an inadequate view of a great occasion. "To the mind of Pheidias as to that of Pisani or Giotto it seemed desirable to have a good building first, of fine material and such masses and proportions as the spirit of wisdom within them ordered; and then to ornament it inside and outside with such historic or symbolic forms as should make the building speak for itself about its intention, and the dwellers in it, and the work to be done in it, and how it came into existence."

We have unfortunately changed all that, and our modern architecture is for the most part perversely inarticulate.

Mr. Sulman's design for the New Exchange at Amsterdam (1878) is a brilliant drawing, hung too high for a critical examination of its details. The general balance of the composition is effective and pleasing. The building is of red brick, with scanty dressings of freestone,—the roofs covered with brown tiles. The gables are of wide span and high pitch, and are consequently conspicuously lofty, and, being broken into curves and corbie steps, are picturesque in a way which is entirely accordant with the genius of the *locus in quo*. There are no fewer than four lofty towers visible in the drawing, effective and well designed, and agreeably diversifying the *ensemble*. We should have liked to see the *motif* of the whole,—the "Exchange" itself,—exteriorly expressed, and this is the only real objection to a very striking design.

We have, on previous occasions, spoken at length of the design for the proposed Admiralty and War Office buildings (1,923–1,931), by Messrs. Aston Webb & Ingress Bell, and have borne testimony to its many fine qualities. We shall only add that it improves on further acquaintance. It is unfortunate that the revised design by Messrs. Leeming has not found a place upon the walls of the Academy, and if it be true, as reported, that its absence is due to a tardy delivery of the drawings, we can only wish that a rule, which is reasonable enough in its general application, had been stretched a little in this particular instance.

"Detail of portion of a Public Building" (1,750) strikes one at first sight as the work of a French architect; but upon examination it turns out to be by Mr. Phené Spiers, who has adopted the French system of drawing and shading which he has so often advocated by public speech. It has, no doubt, some technical advantages; but it is not without some artistic drawbacks. We are glad to see one drawing of the kind in the room, and should be sorry to see many; partly because we do not want to be Frenchified even to our advantage, and the advantage in this instance is at least doubtful. Those who would prefer it to Mr. Flockton's free and flowing lines (1,742), or Mr. George's piquancy (1,765), or Mr. Johnson's clearness and breadth of treatment (1,751), will, we suspect, be in a minority.

Sir Andrew Clarke's "Design for a Military Hospital" (1,957–1,958) was illustrated by us last week, and its leading characteristics have been fully dwelt upon. If built as proposed it will undoubtedly be one of the finest establishments of the sort in Europe,—local circumstances being, it is stated, favourable to the adoption of a more than customary elaborate architectural character, and a singularly fine site affording an unusual opportunity for its effective display.

Mr. E. S. Prior's "Martyn Hall, Cambridge" (1,793), is a vigorous drawing of a masculine design, in a sort of late Gothic between our insular Perpendicular and French Flamboyant. The circular staircase is a prominent feature; and it is a matter for regret that the need for lighting the great hall has apparently prevented this being carried up as a tower. We have only space to refer briefly to Mr. T. G. Jackson's several works, amongst which his Brighton College Chapel Hall and Gateway (1,831-1,838) may be particularised. There is a happy union of breadth and brilliancy about this architect's work which is always attractive, and his peculiar method of pen drawing in imitation of a now obsolete style of engraving is admirably suited to the qualities of his architecture. His later works show a chastened style, and are without defects of detail which detracted from some of his first efforts.

"An two men ride of a horse one must ride behind," and by the same rule we cannot all be hung "on the line." Mr. Conder's drawing "A Temple at Tokio" (1,849) is too high up for careful scrutiny, but its characteristic outline and brilliant colouring can be appreciated, and will no doubt be enjoyed by a public which is just now enamoured of everything Japanese.

NOTES AT THE PARIS *SALON*.

PAINTING.

THERE are no imposing or epoch-making works in the *Salon* of 1885; but it shows serious efforts and illustrates the new path on which modern French art has entered. Mythology is abandoned to a few painters of Classic prejudices, and artists attach themselves more and more to scenes of real life and its surroundings. These tendencies, to which Bastien-Lepage gave such an impulse, have for one result the substitution of realistic colouring for that of convention. In attaching himself to Nature, and interpreting her as she appears to the eye, the artist is under the necessity of modifying his palette, with marked results on the general effect of the collection. One may notice also the almost entire absence of the battle-pieces, for many years so numerous, while, on the other hand, there are some important works in the branch of the art which is more properly called

Historical Painting.—Thus, in the grand entrance, the eye is immediately caught by the immense triptych in which M. Bérond has endeavoured to recall the splendour of the great era of Venice, when Henri III. was received by the Doge with sumptuous hospitality. This composition, full of movement, but disagreeable in colour, shows, however, a strong feeling for decorative design. "La Fille de Jepthté" serves M. Cabanel as a pretext for an exhibition of Oriental costume, giving his composition more the aspect of a modern harem than of a Biblical scene full of the sentiment of sorrow; but on the whole it is treated with great ability, which is more than can be said of the "Cornélie, Mère des Gracques," of M. Boulanger.

Drawing is certainly not the special merit of M. Falguière's picture, entitled "Acis et Galathée." It is extraordinary that a sculptor, going out of his way to paint, should appear as if predetermined to paint coarsely, and scarcely to draw at all. At al events, M. Mercie, another sculptor-painter, who represents "Michel-Ange dessinant un Cadavre," seems able to combine correct drawing with powerful colour.

Here are the eternal early Gallic scenes of M. de Luminais, whose "Prisonnières évadées" is infinitely better than his "Mort de Chilpéric." This year Gallicisms seem to be rather the fashion, too; but we will merely mention the enormous canvases of MM. Lehoux and Maillard. With MM. Maignan, Rochegrosse, and Clairin we are in the full Middle-age period. A chamber in disorder, a corpse whose tone is scarcely distinguishable from the draperies of the bed: that is how M. Maignan represents "Le Mort du Guillaume le Conquérant," a composition solidly painted, though hard in style. Cold as it is, however, we are tempted to prefer this picture to the melodramatic carnage of M. Rochegrosse and the false Orientalism of M. Clairin. The former has made scenes of blood his speciality for some years past. After exhausting the massacres of ancient history, he serves us up to-day the atrocities of *le Jacquerie*. A château sacked by the mob, a group of women and children being slaughtered, is the sensational scene by which M. Rochegrosse endeavours to excite an emotion which is not forthcoming. It is a very old-fashioned art for so young a man. M. Clairin, who seems to wish to revive the glowing colouring of Henri Regnault, gives the title "Les Maures en Espagne" to the largest picture in the *Salon*. The stage figures in parti-coloured garments, with glistening ornaments, the women naked amid the bleeding bodies of the vanquished, all leave us unmoved, though there is a wealth of talent exhausted on them; in fact, this crowd grouped round the Moorish king, in the gay palace of Granada, suggests too much a *mise-en-scène* at the Eden Theatre.

Modern history is badly represented this year. The "Marie Antoinette," whom M. Flameng shows conducted to execution, looks with haughty contempt on the howling crowd. The figure is destitute of either likeness or sentiment, and certainly does not express the Christian resignation of the Royal martyr.

Religious Painting.—Leaving Greek mythology alone for this year, M. Bouguereau shows us, under the same guise, two religious paintings. His "Adoration du Christ par les Bergers" and "Par les Mages" exhibit the same learning, the same absolute correctness, the same cold and expressionless colouring. He is at once powerful and commonplace, marvellous in *technique*, repellent in sentiment. "Le Martyre de St. Denis" of M. Bonnat is intended for the Pantheon. This vigorous composition is not characterised by any religious feeling, but one cannot see without astonishment the decapitated saint running after his head, to the surprise of his executioners. On the other hand, M. Olivier Merson has put genuine feeling into his small picture entitled "L'Arrivée à Bethléhem"; all the poetry of the Bible narrative shines through this exquisite picture.

"Laissez venir Moi les petits Enfants," by a German painter, M. Uhde, shows original talent. In the kitchen of a farm-house children and peasants are grouped round a personage with a slightly monastic aspect. The Christ, in his long blue mantle, with thin and ascetic face, and sad and tender expression, recalls nothing of the legendary type of church art. There is a charming sentiment in the baby who stretches his little hand to the Saviour in the beautiful confidence of infancy; it is a strange and very individual work.

Allegorical Paintings.—Much attention is attracted by the "Solum Patriæ" of M. Fritel, and one looks with astonishment at this equestrian *danse Macabre* of gigantic cavaliers on the soil which they are prepared to defend against the invader. There is something to make a great chapter of here, and Delacroix would have produced a *chef d'œuvre* out of it. With M. Baudouin, allegory comes down from the clouds and shows itself under the forms of our own day. He has no need, like his neighbour M. Chartran, of traditional shepherds and shepherdesses to illustrate "Les Fiançailles." A workman, a pretty girl in a peasant's dress, a corner of a modern village, suffice for this decorative idyll, commissioned for the city of Paris. Here is a work which M. Humbert has executed for the Mairie of the Fifteenth Arrondissement. The day is ended, and the women sit at the waterside waiting for a boat which brings home the labourers. The scene is in open

air, the landscape calm and poetic. In the distance the outlines of a wooded coast are profiled against the sky; the oxen are returning from the plough. All these details are united in an *ensemble* of clear and pleasant colouring. We find the same qualities in "Le Veillée," by M. Pierre Lagarde, ordered for the same building. It is also for a Mairie in Paris that M. Emile Lévy has painted a picture of a young mother nursing her infant, other children playing on the grass at her feet. This picture, entitled "L'Enfance," is charming in style, colour, and expression, but it is a piece of purely neo-Greek archaism; and for a Mairie in which the principal facts of civil life are registered, we cannot but prefer subjects of real and actual life, without compromise with Classic recollections.

Belonging to another order of ideas, the decorative fragment which M. Besnard entitles "Paris" is very remarkable. In the midst of flag-bedecked vessels which float on the Seine is a raft, covered with flowers, on which stands upright a young woman, symbolising "the Republic," who carries in her arms two sleeping children. Behind extends the panorama of the quays, full of life, and glittering with lights, illuminating the perspective of the bridges, the Ile St. Louis, and the monuments. There, to our thinking, is a genuine piece of monumental decoration.

"L'Automne," by M. Puvis de Chavannes, is a variation on the picture at the Musée du Lyon. There is much charm in this graceful, though rather colourless, composition; but, unlike many other paintings, the works of M. de Chavannes certainly do not gain by being reduced to the dimensions of *genre*. They must remain of monumental scale, like those at the Pantheon and at Amiens.

Genre Paintings.—This class of painting occupies, as always, an important place at the *Salon*, except in regard to military subjects, which, as already observed, are at a discount this year. One cannot class among military pictures the works in which M. Flameng and M. H. Cain have dressed up models in the uniforms of incredible officers of the First Empire, and affected Hussars of the Revolution. M. De Neuville is very ill,* M. Detaille is not represented, and M. Protais alone holds aloft the standard of "l'armée française." His "Halte de Chasseurs à pied," cleverly composed in a rather colourless scale, has only the fault of being the repetition of a subject forcibly treated already. We prefer the "Soldats Hollandais partant pour les Indes" of M. Israël, who translates an interesting scene with charm and truth.

The "genre mondain," as it may be called, is, on the other hand, abundantly represented. It is regrettable that its painter-in-ordinary, M. Beraud, should have quitted this year the "Soirées Parisiennes," in which he excels, to transport us to a "Hospice de Fous," a melancholy and disagreeable scene, in place of the spirit, the originality of type, the glittering effects of light which mark the works of his accustomed style.

The quality of elegance, which we regret the absence of in the works of M. Jean Beraud, is what makes the success of the "Hunt Ball" of M. Stewart, where a brilliant effect of light, a gleaming of pearly shoulders set off against the scarlet dresses of the huntsmen, all contribute to the success of this pretty picture. Elegance and taste equally characterise the works of M. John Lewis Brown, whose very individual talent recalls for us this year two episodes of the chase, entitled "Hallali" and "Fauconniers," in warm and luminous colour, a quality absolutely wanting in the "Cavaliers à la Mer" of M. Max Claude, who seem lost in a fog.

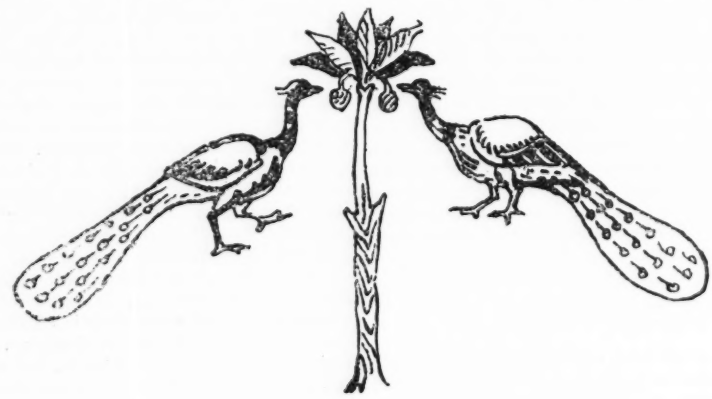
The very Parisian taste of M. Heilbuth has taken this year for its object "Lawn Tennis," painted in charming fashion. M. Heilbuth excels in these kind of elegant scenes of "*plaisir*," which he treats with infinite spirit. There is much humour in M. Gervex's "Jury de Peinture" at the *Salon*, introducing the portraits of well-known artists, but the interest of the work could have been just as well realised on a much smaller scale. What are we to say of "L'Atelier" of M. Duez? Does he wish to prove to us that in this year of grace 1885, the studio of a painter *à la mode* is a sort of museum, where the amateur, astounded by the luxury around him, is to be frightened out of any question of reduction of prices? This fastidious care over accessories leaves us uninterested. How much do we prefer the fine profile of the young girl whom M. Lerolle has painted, in church, singing a hymn, "Dans le Tribune des Orgues." The figure is relieved strongly against the white walls of the church, in an attitude the naïveté of which is most attractive.

It is by simplicity, too, that M. Adan produces his effect in the two pretty pictures "L'Anniversaire" and "Le Retour du Travailleur." "La Mauvaise Nouvelle" of M. Beyle, and "L'Enterrement d'un Fermier" of M. Brispot, are scenes of manners closely studied and of delicate sentiment. "Les Loups de Mer" of Madame Démont-Breton is painted from nature with talent, but with rather heavy colouring. The peasant women of M. Pearce and M. Ridgeway-Knight have nothing of the country about them but their costumes.

Though the remark may seem unkind, there is, nevertheless, in these scenes of rustic life a certain poetry, which seems to disappear completely in the realism of the occupations of the town workmen. In painting from nature "Les Tailleurs de Pierre du Chantier de Suresnes," M. Roll has shown a courage which is hardly crowned with success. This immense painting wants life, and offers only a grey tonality such as does not exist in nature. Everything in the scene, figures and materials, is of the colour of stone. To these sad and depressing "*ouvriers*" M. Lhermitte opposes the loud gaiety of the cabaret. Women and topers crowd around a table stained with wine; the scene is brutal, but full of life, vigorous, and broadly painted.

As for M. Pelez, his delight is to show us every year misery in all its forms. His "Martyr" is a poor little mendicant dying of hunger and cold. His "Misère à l'Opéra" is sordid. Two *figurantes* are dressing, or rather undressing, to appear on the scene. They are exchanging their ragged things for spangled petticoats and red sashes. Under the paint on their faces is the sadness of submission to fate. It is a melancholy picture, but it is well painted and true in colour.* R. B. FENWICK.

* Since this was written, we regret to see that his illness has terminated in death.—ED.



A Mosaic at Palermo.

THE LION AND THE PALM.

NOTES ON RECURRING FORMS IN HISTORIC ORNAMENT.

ON Mr. E. Burne Jones's picture in the Grosvenor Gallery, King Cophetua's golden throne is patterned with designs in *repoussé* studied from ancient metalwork, known as Phœnician, although found widely distributed; these designs are two birds affronted and a lion tearing a bull.

In Venice on the Byzantine palaces these birds and beasts, symmetrically arranged, framed in panels, and altogether made much of, are frequently found. In the "Stones of Venice" several examples are drawn, and of them Mr. Ruskin says:—"The most remarkable point about them is that the groups of beasts or birds on each side of the small pillars bear the closest possible resemblance to the group of lions over the gate of Mycenæ. . . . the whole ornamentation of that gate is so like Byzantine sculpture that I cannot help sometimes suspecting the original conjecture of the French that it was a work of the Middle Ages to be not altogether indefensible"; and then follows a passage from Ezekiel (xvii. 3–7), suggested to his mind by these sculptures, to which I will couple another from the Prophet's vision of the Temple which he saw in the land of the "Chaldeans by the river Chebar." "And it was made with cherubims and palm trees, *so that a palm tree was between a cherub and a cherub*" (xli. 18).

In "Ariadne Florentina" also, Mr. Ruskin speaks of an old sampler of our great-great-grandmothers' time ornamented with these mystical birds, which again remind him of the Byzantine ones, and I have before me some printed cotton curtains, Persian work of to-day, on which, on either side of an immense Noah's ark tree, are peacocks, the whole making a composition exactly the same in intention as the mosaic at Palermo (thirteenth century), or an Assyrian design figured in Perrot and Chipiez: more than this, there are also two representations of a lion tearing a stag, and the "hom," or sacred tree, grows from a mound, like a heap of stones arranged in a pyramid, just like the tree and hill (Mount of Olives) in Middle Age art.

The great ideas expressed in graphic symbols, the struggle of good and evil by the lion and prey, immortality by the "tree of life," and the peacocks, together with the zodiacal signs and chimeras of all sorts, had their origin in the East in remotest times.

I propose to put these few notes together more especially with reference to:—1. The lion's struggle. 2. The birds of immortality. 3. The tree of the desert.

The great work of Messieurs Perrot and Chipiez on Chaldean art, recently published, will afford us examples of all these, but I quote here the descriptions from the catalogue of the British Museum of objects lately arranged in the Kouyunjik Gallery.

4. Cylinder.—"The sacred tree of the Assyrians seems to have been an emblem of the god Assur (chief deity), and the *eagle-headed* figures his attendants."

7. . . . "a *staff*, at the top of which is a tasselled disc supposed to be emblematic of the god Assur" (the staff and disc which thus take the place of the sacred tree is the small pillar of the Mycenæ gates and the Byzantine sculptures).

11. "Two winged figures making offerings to the sacred tree."

13. . . . . "between the two animals a tree upon a *hill of stones*, perhaps another form of the sacred tree."

50. "A lion about to devour an ibex."

53. "Winged figure holding a staff, above two birds, perhaps emblems of the soul."

These small engraved cylinders are of Babylonian, Assyrian, and Phœnician workmanship.

The pattern, known as the "knop and flower," is either the lotus and bud, or the hom and its fruit alternately, and in both forms are the most frequent of Assyrian ornamental designs. From the first the Greeks derived their "egg-and-tongue," † and from the latter the "honeysuckle and palmette" patterns.

We have just seen the Phœnicians engraving seals for the Assyrians; let us now read the Bible account of their work in building and ornamenting the Temple and Solomon's Palace (Chief. 1 Kings v. to vii.).

"And the cedar of the house within was carved with knops and open flowers" (2 Kings iv. 18).

"And King Solomon sent and fetched Hiram

* To be concluded in our next.

† We suspect the egg-and-tongue ornament goes a great deal further back than that.—ED.

out of Tyre . . . . and he made two chapiters of molten brass . . . . of lily work . . . . the two pillars and the two bowls of the chapiters that were on the top of the two pillars, and the two networks to cover the two bowls of the chapiters" (1 Kings vii. 13–41).

"And he made a molten sea . . . . it stood upon twelve oxen . . . . all their hinder parts were inward . . . . and he made the ten bases . . . . on the borders thereof he graved cherubims, lions, and palm trees" (ver. 23–36).

Mr. Ruskin notices in the "Stones of Venice" the curious resemblance that the Byzantine reticulated and basket-work capitals have to those of the Temple, and suggests that perhaps they were an intentional carrying out of the above description. In the British Museum is an Assyrian pavement of stone carved into a geometrical network pattern in flat relief, with a border of "lily-work," and in the introduction to Owen Jones's "Grammar of Ornament" is figured a capital, said to be Sassanian Persian, and therefore many centuries earlier than the Venice examples; it is "bowl"-shaped and is covered with a "network," each reticulation has a form carved in it, which suggests how the "two hundred flowers" were probably arranged in the Temple chapiters, nor with all these resemblances would it be out of place in Venice.

The golden laver was, we have seen, carried on twelve bulls (compare lion fountain of the Alhambra), and the great winged Assyrian bulls in the British Museum were the imposts for the arches of the main entrances. On a slab also we have a *lion bearing a column*, which is seen at once to be like those of Lombardy, and this resemblance is pointed out by Perrot, who has engraved a real model for one of these lion bases to a column which was found.

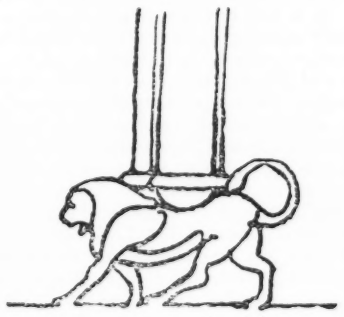


Fig. 1.

Fig. 1 shows us this lion bearing the column;

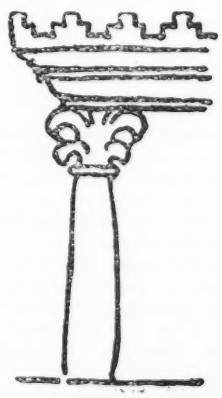


Fig. 2.

fig. 2, a column and parapet, afterwards revived by the Persians, and introduced wherever the Saracens had influence, either in Venice, Sicily, or Spain. Fig. 3 is a group of domes. All these are from the slabs, and engraved by Perrot and Chippiez, who say that the Romans probably derived their domes from Assyria (and it is almost certain the barrel-vault as well). Speaking of the resemblance to Byzantine art, they have the following passage:—"Isidore and Anthemius, the architects of Sta. Sophia, were the disciples and perpetuators of the forgotten masters, who raised so many millions of bricks into the air at the bidding of Sargon and Nebuchadnezzar." Phœnicia is the middle point in the Assyrio-Greek wave in its set westward. Of the metal work of the Phœnicians,—principally bronze bowls in our museums,—few have no examples of the ideas we are tracing. A slight advance, and we find the earliest of the Greek pottery in Rhodes, and the work probably of Phœnician colonists; here, too, are the struggling beasts and the knop and flower of lotus, plainly, as we

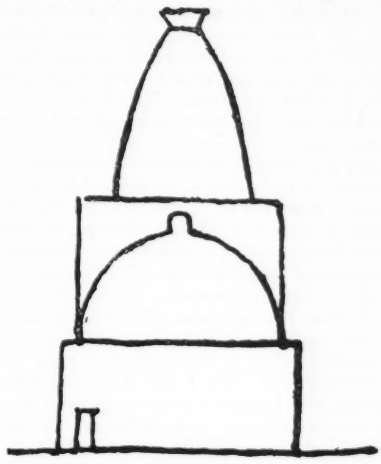


Fig. 3.

see it on some of the vases, the origin of the egg and tongue (figs. 4 and 5).

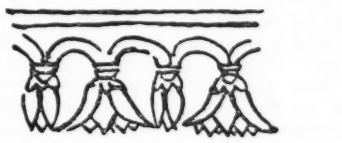


Fig. 4.

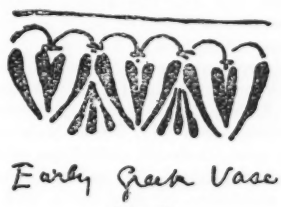


Fig. 5.

In the early Greek art of Asia Minor, the good and evil struggle is, of all subjects, the most frequent; a slab from Xanthus in the British Museum gives us a magnificent example of the lion and stag, and the Temple of Assos and a tomb at Myra of the lion and bull (see Texier and Pullan), and if we follow carefully the transition, it will be apparent that the tradition is Assyrian, even when the structure becomes modified by availing itself of Greek marble in the place of the burned clay of the plain, and by borrowing some constructive ideas from Egypt. I think it could be shown that the Greeks invented nothing (eliminated, rather, and perfected). Do we look for the prototype of the processional frieze, through Lycia we shall come to Assyria; for that of the great sitting Zeus let us go to Branchidæ and Kalah Sherghat.

The earliest Greek coins are closely allied to Assyrian engraved seals; the Phœnicians seem to have worked for both peoples. A coin of Acanthus, of the sixth or seventh century, has the lion tearing the bull; those of Sybaris show that bull striking the ground with its hoof, of which there are so many Assyrian carved ivories; and, indeed, most of the types are of Eastern origin.

In fully-developed Greek art any symbolical import in these ideas had been forgotten, and although the sacred tree has become the almost universal palmette or honeysuckle, it is merely ornamental (see the palmette and guilloche on the Ninevite ivories). That we should find these Eastern ideas in all progressive schools, and lose them in all failing ones, is one great proof of the proposition I am trying to establish.

For one generation this great tide of art washes the rock of the Acropolis, and then its strength spent, it falls during later Greek and Roman times, still continues to fail in Romanesque, and is finally lost, leaving us only the stones which its power has channelled.

Henceforth we must be careful to discriminate between this spent impulse and the one that follows.

In the third century of our era the old Persians rose under Artaxerxes, who founded the dynasty of the Sassanidæ; and here, again, in the land of Iran, are the beginnings of a new cycle,—the second or Byzanto-Gothic, which culminated in Europe in the thirteenth century: at once our mystical beasts and birds are resumed as national symbols, and an architecture is founded on the old Assyrian dome.

As Phœnicia was our middle term in the first series, Syria was in the second; here the new art, which was the old, was adopted for Christian use. "La Syrie Centrale" of the Count de Vogüé shows us work which might be Venetian Byzantine, of the ninth century, or even Southern French of the eleventh, being done here from the fourth to the seventh. It will be useless my pointing out individual resemblances, the whole being so much to the purpose. The peacocks become Christian symbols of immortality, and decorate important positions, together with the sacred monograms and foliage of the vine, it will be well to notice, however, that this foliage is identical in character with that of the North Italian schools of the thirteenth century; and is, at the same time, the Assyrian relief. Those exquisitely-sketched vines and flowers of an Eastern "Paradise" which we find on the slabs, have no following, so far as I know, in Greek art.

It should be remembered that the emperors lived much in Asia at this time, and here at Nicæa was held the first great Council. Which ever may be the first Byzantine buildings on our side of the Hellespont, those of Constantinople or of Thessalonica, there can be no doubt of their Eastern origin, although, of course, they take to themselves much from the Old Greek. Persian gold is added to the Roman mosaic, and the Sassanian dome spheres over the centre of a Latin basilica. Sta. Sophia was commenced in 531, and but little later Eastern artists were at Ravenna, where we shall find our peacocks and palms on the golden field of the mosaics.

When in the seventh century the Saracens conquered the Persians, the latter became their artists, as the Greeks had for the Romans (the Arabs not being nor becoming architects), it was through the conquests and commercial relations of the Saracens, however, that this Eastern art acted on the West, and it is interesting to compare the buildings of Cairo and Damascus with those of Italy. In these cities we shall find the alternate courses of different marbles (Aladdin's Palace was of courses of gold and silver), and the embrasured parapets, of many forms, derived from those shown us on the Assyrian and Lycian slabs.

The Persians, too, had revived the tissues for which Babylonia was so famed; and on these in all ages, from the veil of the Temple to the latest hanging by Morris, will be found the hom and the birds. Haroun Alraschid made a present of some of these textiles to Charlemagne, and in a few centuries, from the marts of Venice, Palermo, and Limoges, they were distributed all over Europe, and are the origin of all those luxurious brocades of the Renaissance painted by Veronese or Bronzino.*

W. R. LETHABY.

THE "INVENTIONS" EXHIBITION.

FURNITURE AND ACCESSORIES.

A GREAT invention apparently would be to define an invention; for, although we are told that there is nothing new under the sun, there are necessarily many ideas which must be new to each generation, or, what is perhaps more to the point, the combination and application of these ideas to the working requirements of the time, invest them with a novelty which is sufficient to warrant the title of an invention. We must, therefore, expect to find in all branches a number of old friends with new or but slightly altered faces, and in Group XXII., comprising "Furniture and Accessories" (South Central Gallery), there is no exception to this rule. The smallness of the spaces allotted has, no doubt, prevented many would-be exhibitors from making an effort to be represented, as it would be impossible in such limited areas to obtain a satisfactory result. Owing to this the exhibits are numerically small also, and the indecision noticeable last year, as to which class or heading the various goods should come, again prevails; thus we find bronzes and alloys in Group II.; household fixtures, Group III.;

* To be continued.

carpets and rugs, Group IX.; china and glass, Group XXIII.; and paperhangings in Group XXVI., and fancy goods classed also under this comprehensive arrangement. Furthermore, these subdivisions are often far apart in the building, and as some of the exhibitors are not yet ready, it becomes rather difficult to do otherwise than to follow a somewhat erratic example, and take them as they come.

The first on the list in Group XXII. (1,698), Messrs. A. Sanderson & Sons, 52, Berners-street, W., show the "Lionsdale Wall Decoration" and the Patent Ingrain Paper, which, although "washable, hygienic, and waterproof," looks much the same as any paper not credited with these characteristics. Some simple, yet fairly effective, wood panelling and lining (1,699), by Messrs. J. F. & G. Harris, 58, Wilson-street, Finsbury, may be noted, there being a wide range of colour obtained by the contrast of the various woods of a work-a-day useful kind, such as pine, mahogany, walnut, and others, with "not too much, but just enough" workmanship to make the most of the material. Messrs. C. Pratt & Sons, of Bradford, have some furniture and upholstery in a particularly small boudoir (1,703), in which sense of scale is lost, owing to the enforced crowding; the work is of unequal merit, the delicate plaster panelling to walls and ceiling being among the best. Messrs. W. Wallace & Co. send a combination bed-room suite (1,704), of simple design; some of the coloured inlay, however, would be better for a little more freedom of line. Old friends are recognised in Messrs. Cameron, Amberg, & Co.'s elaborate system of letter filing, the number of the stall being 1,706. There is a novelty (1,708) by Messrs. T. Wilkinson & Sons, of Birmingham, viz., their patent Pelican ware, or untarnishable electro-plate, decorated in colours, which is perhaps more curious than beautiful. Mr. James Allen, of Leeds (1,710), exhibits a chair of improved construction, for hotels, clubs, and general purposes, with immovable joints and without braces, or, in other words, larger than usual mortise and tenon joints are used instead. Now that so much attention is being called to the hardship imposed upon shop assistants, both male and female, by reason of the long hours and the prevailing prejudice against their sitting down during the day, it may be well to notice the pivot seats (1,712), by Mr. E. B. Fitton, of Great Malvern; these are specially designed for use behind shop-counters; here, however, an unfortunate selection has been made to illustrate a good idea, as some very poorly-constructed and finished examples have anything but an inviting look. We would suggest to one of the Early Closing Associations that their efforts could be well utilised in this direction by bringing the boon of a few minutes' occasional rest, so simple yet so great, before the notice of a vast number of people, and upon an occasion like this there would be an unusual opportunity of furthering their views. 1,713, by Arthur Foley, Fisherton Steam Cabinet Works, Salisbury, is a patent economic combination of chimney-piece and coal receptacle, and patent combined fender and coal vases to fit any size hearth; a placard calls attention to the fact that the limited space prevents due justice being done to the arrangement, and as the "arrangement" is in two tiers, it leaves the observer in doubt as to where the fireplace should be, and a few *repoussé* brass fittings do not tend to make the design any more clear; the workmanship, however, is satisfactory, though simple, and the desired explanation would probably be the same. Messrs. Gainsford & Co. show an improved writing-table (1,717), economical and useful, the lock to the centre drawer also fastening the locks in the pedestals. Above this hang two black-and-white drawings of interior decoration, both good in their way, and the same may be said of a similar subject in colour, such as we are accustomed to see elsewhere, for we believe this firm have only comparatively recently considered the subject of decoration. In 1,719, Messrs. W. B. Simpson & Sons, we find some very choice specimens of Anglo-Limoges enamels, with patented system of sectional jointing, as in stained-glass. The beauty and delicacy of these imperishable works in Mediæval times are matters of renown, but now, by means of the system of jointing referred to, the composition of a subject can be carried to any scale without losing its characteristics, although the single "plaques" seem to attract greater artistic interest. The allegorical and poetical subjects are carefully chosen, and show able drawing and manipulative finish, great care having been taken also to mount and surround the numerous works in such a way as to display them to advantage. Altogether it may be said that this exhibit is the most artistic and graceful we have seen for some time past, its value being emphasised by the particularly inartistic inventions frequently seen elsewhere. The next worthy of note is 1,722, by Messrs. Hampton, who send a small but good corner cabinet of oak, combined library steps and easels, on which are displayed two studies of interior decoration; a rich tapestry curtain helps to set off a useful and pleasant example of sound work. Patent wood mosaic is shown by (1,726) Messrs. William and Frank Brown & Co., Eastgate-row, Chester; this is formed of small blocks of different coloured woods end-grain upwards: the disadvantage of this is that it scratches very readily and would require constant oiling or polishing where a decorative effect is required, and this effect is its *raison d'être*. No. 1,727 is a new method of inlaying wood, particularly crude and raw, line and colour being as unsatisfactory as may be; the exhibit generally being unworthy of even the small space occupied. The New Patents Development Association (Limited), 49, Glengall-road, Old Kent-road, have a creditable show of an unusual kind; a description of many lines in the catalogue may be summarised as "wood carving by machinery." There is some bold work, which, although missing the sharpness and "go" of manual labour, reminds us of much that may be seen in many an old church or hall after it has passed through the hands of even the most careful of restorers,—that is to say, after it has been pickled to remove the disfiguring paint; some portions look like leather, but if used at a distance from the eye the effect might be fairly good. Some specimens of painters' brushes and brushes for technical and manufacturing purposes are arrayed by Mr. Edward Ormerod, of West Drayton, Uxbridge (1,731), Messrs. Hinde Brothers (1,732), Horsey's Brush Manufacturing Co. (Limited), and Mr. John Masters. After passing a miscellaneous collection of travelling trunks and varied wicker work, we come to an ordinary collection of floor-cloth and linoleum (1,747) by Messrs. Hendry, Whyte, & Strachan, of Kirkcaldy; next to this is the (1,748) well-known "Lincrusta-Walton," shown by the Lincrusta and General Decorating Co. (Limited). Attention is here claimed for two novelties,—a patent combination mantelpiece with a sliding hinged grate screen, and new designs in their lincrusta, *i.e.*, the parts are specially bold and large, suitable for a great expanse of wall surface. The example given is a chocolate and dead-green dado, with a wall surface above of blue with a gold or rather bronze stamping of a large type, and suggesting a Persian pattern. The chimney-piece is of fumigated oak, with horizontal and vertical panels in high relief, the relief being the greatest yet obtained in this material. The screen to the grate is hinged so as to fold back, and then slides behind the jamb. When in use, this screen (which consists of four bevelled mirrors in framing) serves to hide the grate, which may thus always contain a ready-laid fire, no small advantage in a variable climate. Messrs. Story Brothers & Co., of Lancaster (1,749), show a new fabric in lieu of paper for the decoration of walls: this is of the nature of a printed cotton, and could apparently be fixed like an ordinary wall-paper, and be washable.

The Royal Pavilion has again been furnished by Messrs. Gillow, which is a guarantee of its fitness. The vestibule in the Arab style maintains the usual strongly-marked features, a Louis XIV. drawing-room contains among other luxuries some panels and chair-coverings of tapestry from the Royal Windsor works, and some inlaid cabinets and tables which have never been surpassed. The "Adam" dining-room looks thin in treatment occasionally; more might have been done with the ceiling, a feature which the "Adelphi Brothers" were seldom unmindful of.

This concludes one section, which is by no means well represented, and bears no comparison either in quantity or quality to that of a like class in last year's Exhibition, the reason we have given, viz., the space allotted, probably accounts for the absence of many well-known names which we might reasonably expect to see; or possibly it may have been supposed that furniture did not present many points of contact with the professed object of the Exhibition.

Illustrations.

SCULPTURE AT THE ROYAL ACADEMY.

WE give this week illustrations of the two monumental statues which form pendants to each other, as may be said, at the east end of the lecture-room at the Royal Academy: the late Lord F. Cavendish, by Mr. Woolner, R.A., and the late Dean Close, by Mr. Armstead, R.A. Both, as will be observed, are based on the same simple and suitable idea, the sculptured representation of the subject of the statue, lying as in his last rest, covered with full drapery which shrouds while slightly indicating the figure beneath.

It is right to mention that Mr. Woolner is of opinion that the expression and feeling of his work are seriously altered and impaired, in its present position in the Academy rooms, by being placed in too full a light, for which it was not designed. Only those who have compared the effect of the same sculpture under different conditions of light can fully appreciate the importance of such a complaint.

CHURCH OF ST. JOHN THE BAPTIST, KENSINGTON.

WE give a view of the interior of this church, from a drawing kindly furnished to us by the architect, Mr. James Brooks. The church is now in course of erection in Holland-road. Like all Mr. Brooks's churches, it is characterised by great solidity and massiveness of treatment, ornament being very sparingly used. In this example, it will be observed that in the purely architectural portion of the work—apart from furniture and accessories—the only carved ornament is the dog-tooth enrichment which is used to accentuate the capitals and the vaulting ribs. It is not implied that well-designed and executed carving, even profusely introduced (if in the right place), is hurtful to architectural effect and dignity, but that architectural mass and weight are the primary elements of dignified effect, without which no decorative accessories will give dignity and high architectural character to a building, and with which ornament is only a secondary consideration. The example of avoiding littleness of detail and seeking monumental expression in the first instance, which Mr. Brooks has consistently set in a number of churches built from his designs, has, we believe, exercised a considerable effect on public taste, outside of the architectural profession.

Whether the form of mediæval church here shown is the best adapted to the feeling and to the practical requirements of modern worship, is another and much larger question, in which others besides architects are concerned, and which we do not go into here.

DRAWINGS OF WENLOCK PRIORY.

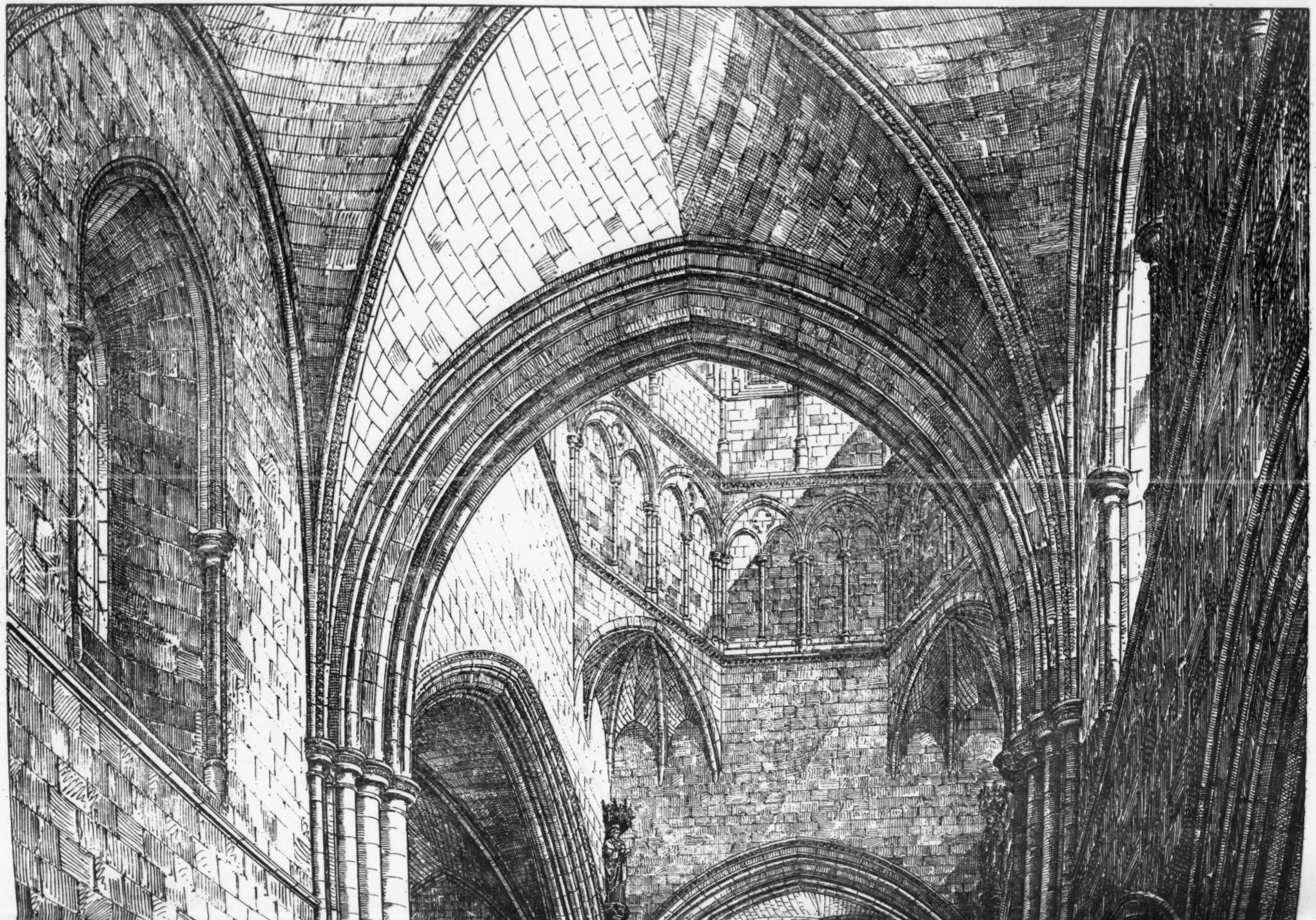
THESE drawings were submitted in competition for the Institute Silver Medal for measured drawings, and gained their author, Mr. T. L. Worthington, a Certificate of Honour. Mr. Worthington sends the following historical notes to accompany the drawings:—

"The beautiful ruins which are situated at Much Wenlock, in the County of Shropshire, are commonly known by the name of 'Wenlock Abbey.' This is a misnomer. It should be 'Wenlock Priory.' Wenlock, together with about thirty other religious houses, belonged to a class of priories owing allegiance to the great Burgundian Abbey of Cluny (now itself a complete ruin), situated about 50 miles north of Lyons. The order of Cluny, founded at the beginning of the tenth century, was originally Benedictine. Though thus in rank but a priory, and subject to a rigid and extortionate control, Wenlock was the oldest and most privileged, perhaps the wealthiest, of the religious houses of Shropshire.

First Foundation.—The first foundation was by St. Milburga, granddaughter of Penda, King of Mercia, at the end of the seventh century, circa 680 A.D. This building was, however, destroyed about 874 by the Danes, who were then conquering Mercia.

Second Foundation.—The second foundation was by Leofric, Earl of Mercia, who revived memories of the life and death of St. Milburga. His work was accomplished between 1017 and 1035, in the reign of Canute, as recorded in the Domesday Book.

Third Foundation.—The third foundation was



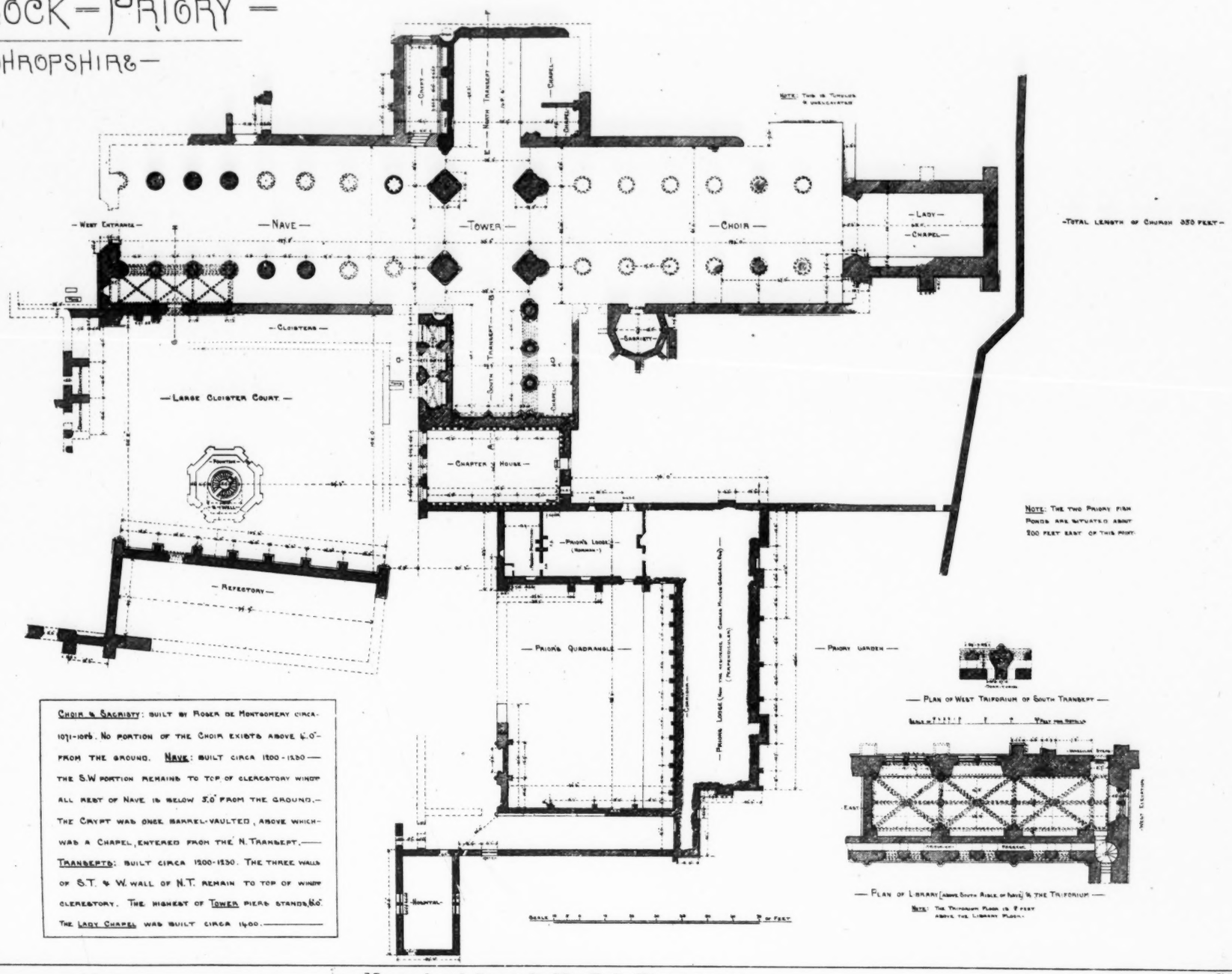
Church of S. John ye Baptist · Kensington · Interior looking East *James Brooks · Architect.*

Wyman & Sons, Photo-Litho.

Ct Queen St London, W.C.

— WENLOCK — PRIORY —

— SHROPSHIRE —


— CRYPT —
— NORTH TRANSEPT —
— CHAPEL —
— WEST ENTRANCE —
— NAVE —
— TOWER —
— CHOIR —
— LADY —
— CHAPEL —
— TOTAL LENGTH OF CHURCH 350 FEET —
— CLOISTERS —
— LARGE CLOISTER COURT —
— SOUTH TRANSEPT —
— SACRISTY —
— CHAPTER HOUSE —
— PRIOR'S LODGE —
— REFECTORY —
— PRIOR'S QUADRANGLE —
— PRIORS LODGE (SEE THE REMAINS OF CANONS HOUSE BEHIND THIS) —
— PRIORY GARDEN —
— HOSPITAL —
NOTE: THE TWO PRIORY FISH PONDS ARE SITUATED ABOUT 200 FEET EAST OF THIS POINT.
— PLAN OF WEST TRIFORIUM OF SOUTH TRANSEPT —
— PLAN OF LIBRARY (ABOVE SOUTH AISLE OF NAVE) & THE TRIFORIUM —
NOTE: THE TRIFORIUM FLOOR IS 9 FEET ABOVE THE LIBRARY FLOOR.

CHOIR & SACRISTY: BUILT BY ROGER DE MONTGOMERY CIRCA 1071-1085. NO PORTION OF THE CHOIR EXISTS ABOVE 4'0" FROM THE GROUND. NAVE: BUILT CIRCA 1200-1230 — THE S.W PORTION REMAINS TO TOP OF CLERESTORY WINDS ALL REST OF NAVE IS BELOW 3'0" FROM THE GROUND. — THE CRYPT WAS ONCE BARREL-VAULTED, ABOVE WHICH WAS A CHAPEL, ENTERED FROM THE N. TRANSEPT. — TRANSEPTS: BUILT CIRCA 1200-1230. THE THREE WALLS OF S.T. & W. WALL OF N.T. REMAIN TO TOP OF WINDS CLERESTORY. THE HIGHEST OF TOWER PIERS STANDS 80'0". THE LADY CHAPEL WAS BUILT CIRCA 1400.

Wyman & Sons, Photo-Litho

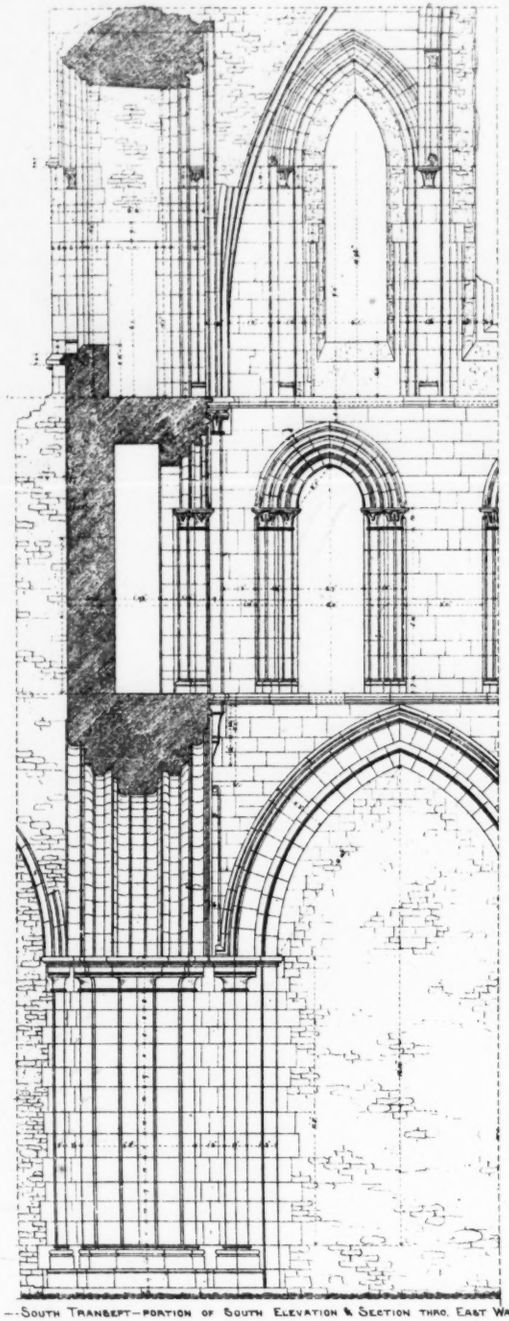
Measured and Drawn by MR. T. L. WORTHINGTON.

Ct Queen St London, WC.

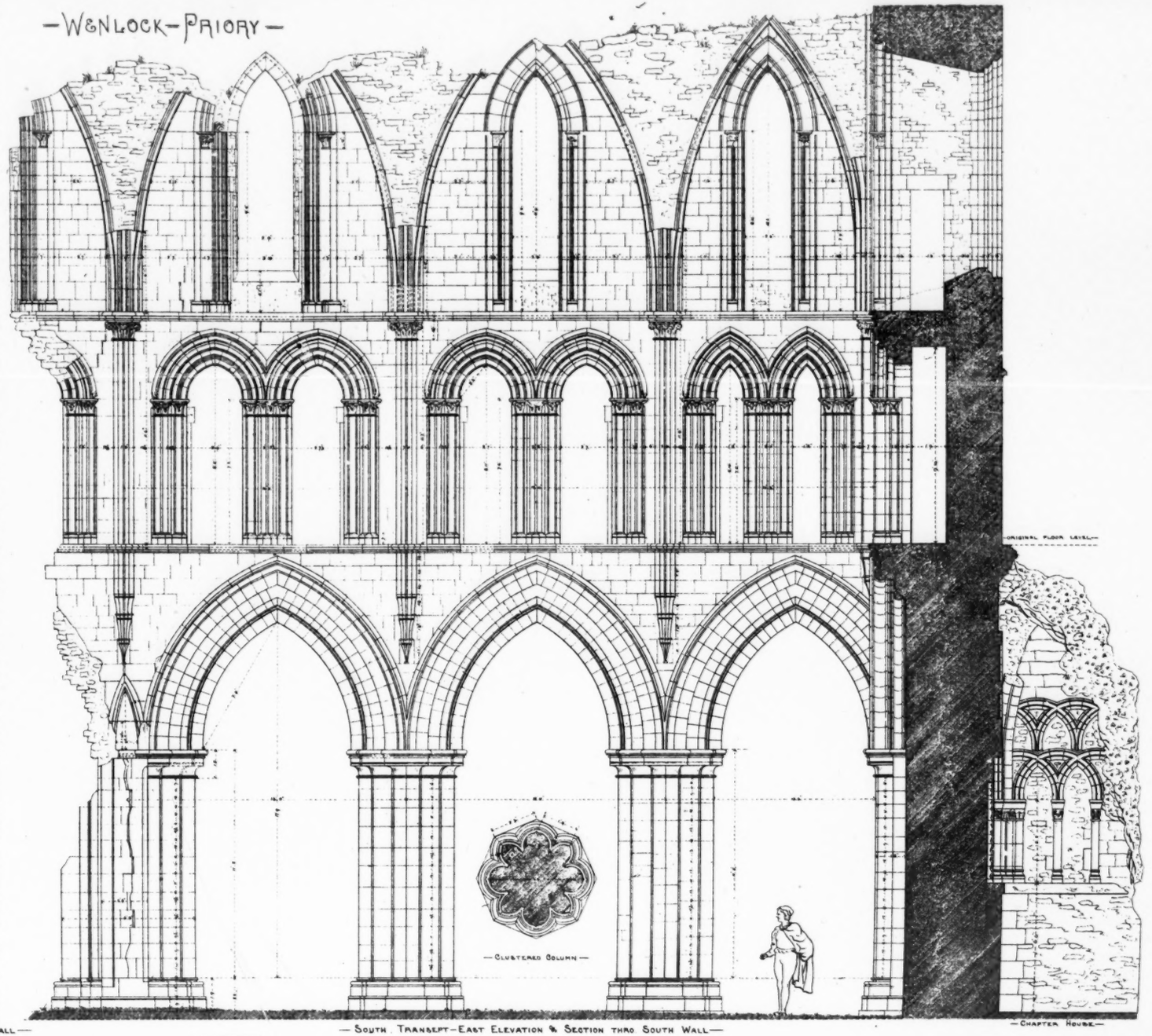
Measured and Drawn by Mr. T. L. Worthington.

6 Queen St London WC

—WENLOCK—PRIORY—



—SOUTH TRANSEPT—PORTION OF SOUTH ELEVATION & SECTION THRO. EAST WALL—



—SOUTH TRANSEPT—EAST ELEVATION & SECTION THRO. SOUTH WALL—

—CHAPTER HOUSE—

Wyman & Sons, Photo-Litho. *Measured and Drawn by* MR. T. L. WORTHINGTON. C^t Queen S^t London, W.C.

"INK-PHOTO." SPRAGUE & Cº. LONDON.

SCULPTURE AT THE ROYAL ACADEMY.

MEMORIAL FIGURE OF THE LATE VERY REV. DEAN CLOSE.

MR. H. H. ARMSTEAD, R.A., SCULPTOR.

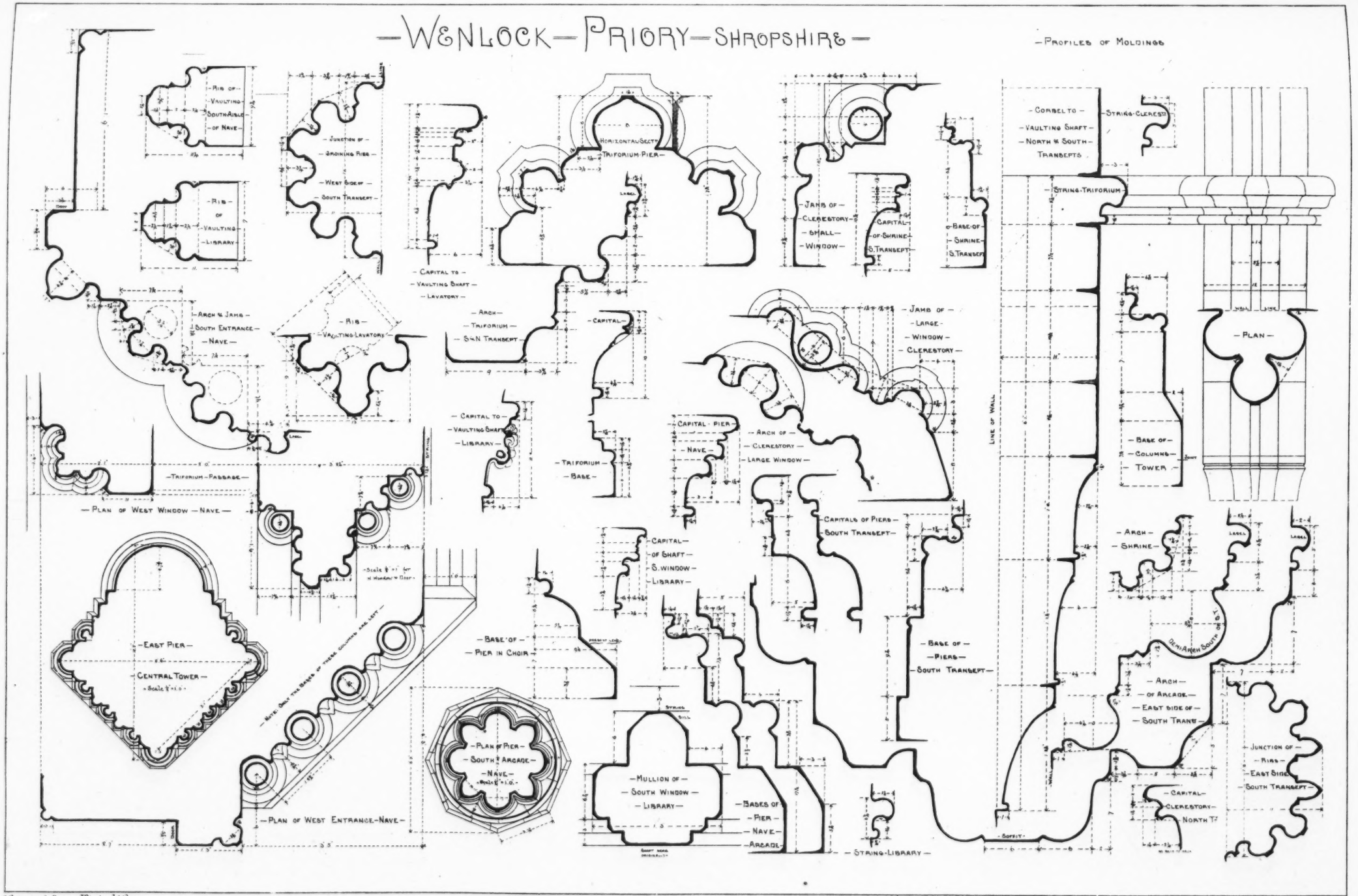
"INK-PHOTO," SPRAGUE & Cº, LONDON.

SCULPTURE AT THE ROYAL ACADEMY.

MEMORIAL FIGURE OF THE LATE LORD FREDERICK CAVENDISH.

MR. T. WOOLNER, R.A., SCULPTOR.

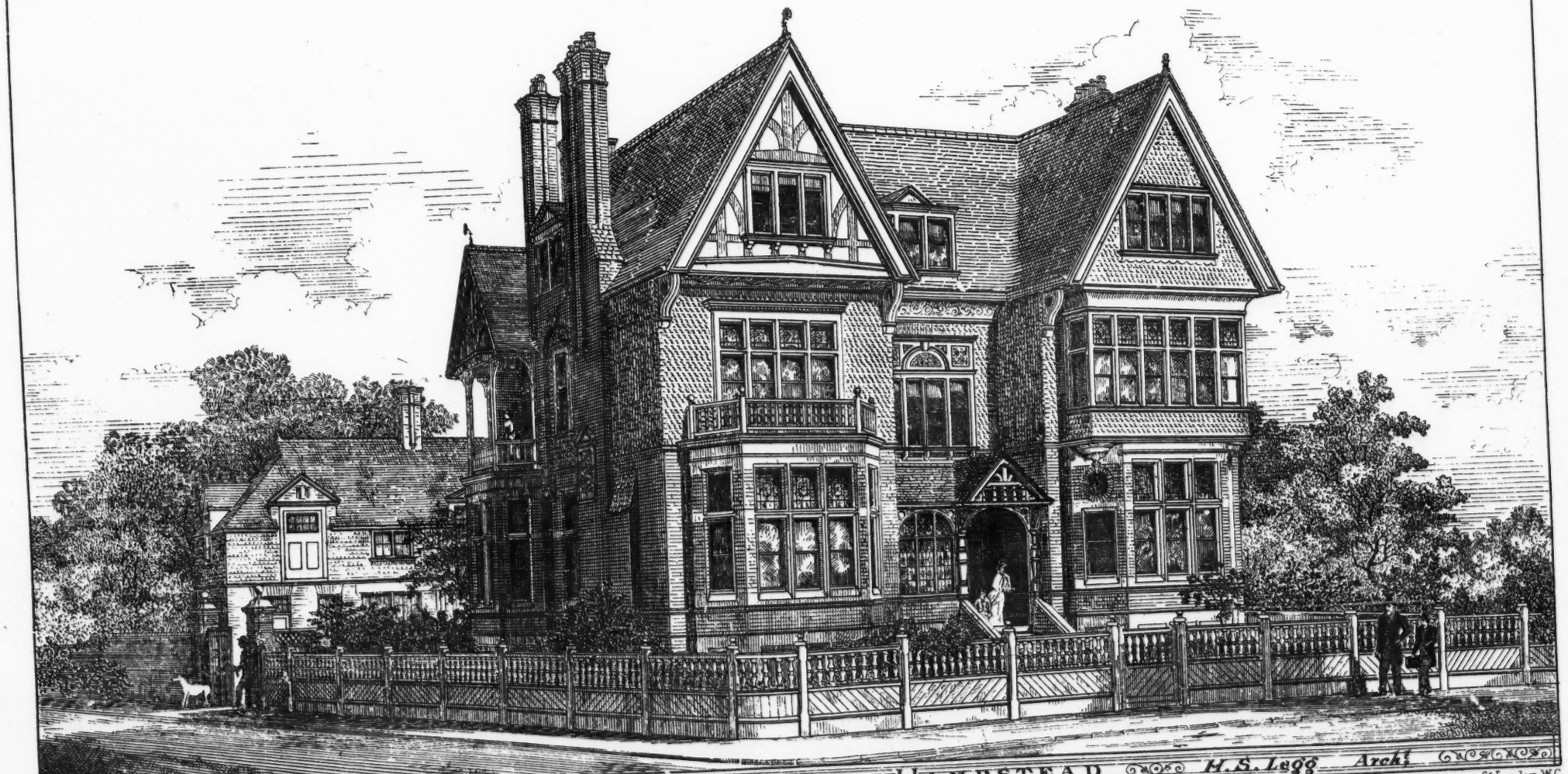
—WENLOCK—PRIORY—SHROPSHIRE—


—PROFILES OF MOLDINGS
—Rib of— —Vaulting— —South Aisle— —of Nave—
—Junction of— —Groining Rib— —West Side of— —South Transept—
—Rib— —of— —Vaulting— —Library—
—Capital to— —Vaulting Shaft— —Lavatory—
—Horizontal Sect.ⁿ— —Triforium Pier—
—Jambs of— —Clerestory— —Small— —Window—
—Capital— —of Shrine— S. Transept
—Base of— —Shrine— S. Transept
—Corbel to— —Vaulting Shaft— —North & South— —Transepts
—String-Clerest.ʸ
—String-Triforium
—Plan—
—Base of— —Columns— —Tower
—Arch— —Shrine
—Arch— —of Arcade— —East side of— —South Trans.ᵗ
—Junction of— —Ribs— —East Side— —South Transept
—Capital— —Clerestory— —North Tr.ᵗ
—Arch & Jamb— —South Entrance— —Nave—
—Rib— —Vaulting Lavatory
—Arch— —Triforium— —S.th Transept
—Capital—
—Capital to— —Vaulting Shaft— —Library—
—Triforium— —Base—
—Jambs of— —Large— —Window— —Clerestory—
—Capital Pier— —Nave—
—Arch of— —Clerestory— —Large Window—
—Capitals of Piers— —South Transept—
—Triforium—Passage—
—Plan of West Window—Nave—
—Capital— —of Shaft— —S. Window— —Library—
—Base of— —Piers— —South Transept—
—East Pier—
—Central Tower—
—Base of— —Pier in Choir—
—Plan of Pier— —South Arcade— —Nave—
—Mullion of— —South Window— —Library—
—Bases of— —Pier— —Nave— —Arcade—
—String-Library—
—Soffit—
—Plan of West Entrance-Nave—
Line of Wall

Wyman & Sons, Photo-Litho

Measured and Drawn by MR. T. L. WORTHINGTON.

Cᵗ Queen Sᵗ London, W.C



HOUSE at GAINSBOROUGH GARDENS + HAMPSTEAD H.S. Legg Archt

C^t Queen S^t London. W.C

Wyman & Sons. Photo-Litho

about 1080, portions of which structure yet remain. Roger de Montgomery, a Norman, was in 1071 presented with the Earldom of Salop. The new Earl, between 1071 and 1086, built or restored the church of St. Milburga, at Wenlock. The year 1080 has been assigned as the specific year of this foundation of the Norman Earl, and with much probability, for Wenlock Priory was a younger house than Lewes, which was originated in 1077-8, and older than Shrewsbury, which was first designed in 1083. Of Earl Roger's charter nothing is known to exist. The particulars must be gathered from the Domesday Book, from which we learn that six years after its alleged foundation, *i.e.*, in 1086, the monks of Wenlock were possessed of nearly all that had been owned by the church of St. Milburga, in the Confessor's days.

It was during the eleventh, twelfth, thirteenth, fourteenth, and fifteenth centuries that the Priory flourished, and to the eleventh and twelfth we may ascribe the beautiful and rich Norman architecture still to be seen in the rectangular chapter house, and traceable in the moss-covered bases of the choir piers. The nave, transepts, and tower were probably constructed at the beginning of the thirteenth century, and the Lady Chapel and the greater portion of the Prior's Lodge (now the residence of Mr. Charles Milnes Gaskell) at the beginning of the fifteenth century.

Wenlock Priory is one of the most picturesque ruins in the country, though the larger portion of the original structure no longer exists, having gradually been quarried away during the last few centuries. Indeed, most delicate details can now be seen in the walls of the rectory of Much Wenlock, situated about half a mile from the Priory.

The three walls of the south transept, the west wall of the north transept, the south-west portion of the nave, the rectangular chapter house, and the north and west walls of the refectory, alone rise high above the ground to testify to the beauty and grandeur of this immense mediæval church. Traces can be seen of the whole of the choir and most of the nave, though the thick growing grass and vegetation greatly obscures the same."

VILLA, GAINSBOROUGH GARDENS, HAMPSTEAD.

THIS villa, as shown by our illustration, is now being erected and is nearly completed. It is situate near Well Walk, and adjoins the Heath at Hampstead. Being on high ground it commands an excellent view of the Heath in one direction, and of London (in the distance) in another.

It has four floors, and contains the usual accommodation of a gentleman's residence of moderate size, having a tolerably large hall with staircase in the centre. It has also balconies arranged at the east and south fronts, under overhanging roofs, on purpose for the views. Stables are also erected, as shown, in the rear.

The lower part of the walls and the chimneys are all executed in the best red brick of a dark colour. The upper parts of the walls are tiled with ornamental tiles, the proper effect of which, however, is not quite afforded by the view here given, being in bands of plain and ornamental tile-work. The mullions and lintels (where the latter are needed) are all of best red Mansfield stone. Most of the internal joiner's work is of pitch pine. The roofs are covered with Broseley tiles.

The exact cost of the building is not known at present, the work being done without a contract, but it is considered it will be about 3,500*l*., including stables.

The villa is being erected for Mr. T. Clifford, from the designs and under the superintendence of Mr. Henry S. Legg, architect, of Christ's Hospital, London.

A large new Clock has just been erected at Chesham Bois Church, Buckinghamshire, by Messrs. John Smith & Sons, Midland Steam Clock Works, Derby. It is fitted with all the most recent improvements brought out by this firm, and is guaranteed not to vary more than fifteen seconds a month. The same firm are making large clocks with chiming machinery for Beaconsfield Church and for Winslow Church in the same county.

ROMAN REMAINS IN ALGERIA.

ROYAL INSTITUTE OF BRITISH ARCHITECTS.

THE eleventh ordinary meeting of this Institute took place on Monday last, Mr. Ewan Christian, President, in the chair.

Mr. W. H. White (the Secretary) announced that the Institute had lost an Hon. Associate by the death of Sir Watkin Wynn.

Mr. Alexander Graham, Fellow, then read a paper entitled "The Roman Occupation of North Africa, with special reference to the Remains in Algeria." The following is an abstract :—

The author referred to this country as offering a great field for antiquarian research, from primitive times down to the Arab occupation, and to the great value of the numerous inscriptions, affording abundant material for a history of North Africa. Old writers do not furnish much reliable information about the towns, either Phœnician or Roman; but eighteenth-century travellers throw great light on the whole subject. Our indebtedness, as architects, is greater to Bruce than to any other explorer, on account of his careful drawings of some of the principal monuments, and his critical notes. The author then alluded to illustrated and other works by French travellers, and their general excellence, and then proceeded to explain the boundaries of the country known to the Romans as North Africa at the close of the third Punic war, showing how it was divided and what races inhabited it. The rise and progress of the Carthagenians were then traced to their final subjection to Rome, reference being made to the apparent absence of any influence exercised by Carthagenian over Roman art. The spread of the Roman colony was then traced from the sea to the desert, as evidenced by inscribed stones that strew the surface in every direction, sometimes where least expected. These stones form the real history of the country. There is a difficulty in assigning a precise date to some of the principal monuments on account of the fragmentary condition of inscriptions, but the reign of Severus may be credited with the largest number; a remark followed by an extract from M. Choisy's work entitled "L'Art de bâtir chez les Romains," explaining how the building art under the Empire made rapid advances, while Classic architecture, as an art, was declining. The author then referred to a map, showing all the principal towns in the colony of North Africa in the age of the Antonines, supplemented by a tabulated list of the principal cities, distinguishing the *coloniæ* from the *municipia*. Then starting from the eastern frontier of Algeria, that corresponded very nearly with the old boundary between Numidia and Africa proper, he tracked the Romans along the coast, and then into the plains to the slopes of the Aurès down to the military posts in the great Desert. Passing by *Hippone*, which has little left to interest us except as the scene of the labours of the good St. Augustin, the author touched at *Rasicada*, a place of considerable importance, judging from the numerous remains found there, drawings of the most important being exhibited on the wall. Then passing *Saldæ* and *Iconium* with slight reference, he gave a full account of *Julia Cæsarea*, the capital of Juba II., saying a few words about this remarkable man and all that he did to beautify the city of his choice. The author then alluded to *Tipasa*, and gave a brief description of the few Roman remains to be found farther westward.* Returning by *Sitifis*, in the plains, the author described the principal monuments at *Cuiculum*, and then gave a full account of the remarkable mosaics discovered at Oned Almenia, giving a little insight into the country life and habits of the Romans in the fourth and fifth centuries, and showing, by reference to inscriptions, how much encouragement was given by the emperors to the breeding and training of Numidian horses for the circus at Rome. A few words sufficed for a description of *Cirta*, the remains of the great Roman bridge there over the Roumel, and the tombs of Præcilius the silversmith, and of the family of Lollius. Then passing southward by the ruined monument known as *Es-Soumah*, the author described the principal remains of *Tibilis* and of the important town of *Calama*, referring also to the sites of *Khamisa* and *Medauri*, which, as yet, have only been partly explored. Journeying southward a full description was given of the remarkable city of *Lambæsis*, with its forty triumphal arches, its great establishment for an entire military legion, and of the many objects of interest still to be seen in the Museum there. Passing by *Verecunda*, the author gave an account of the ancient *Thamugas*, at the foot of the Aurès, describing the beauty of its situation and the striking character of some of the monuments, referring to the city as the Pompeii of North Africa. Continuing along the northern slopes of the mountains, the author gave a brief history of the ancient *Theveste*, its remarkable quadrifontal arch, its little temple of Minerva and the ruined basilica of Vespasian's time that had been converted in the sixth century into a Christian Church. Passing over the Aurès the author completed his account of the Roman occupation of this part of the country by referring to the military posts far down in the desert. The value of these monumental remains was then considered; the author endeavouring to show that, although the triumphal arch, the great Thermæ, the basilica, and even the colonnade of the Roman are now no longer needed, yet the spirit that prompted these works is with us still, evidenced in a measure by our language, our literature, our laws, and even our festivals and calendar, concluding with a remark that, as citizens as well as architects, a study of the works of the Romans was of value as well as of exceeding interest.

The Chairman, in inviting discussion, remarked that Mr. Graham had brought before the Institute a fresh subject of considerable interest, illustrated by a series of drawings, which showed extraordinary industry, and were such as were rarely seen upon the walls.

Professor Hayter Lewis proposed a vote of thanks to Mr. Graham for his extremely interesting lecture, and magnificent series of illustrations. North Africa might be described as almost an unknown land, although it was within twenty-four hours' sail of Marseilles. Colonel Playfair, in his well-known book dealing with the country, had given scarcely any plans, so that many of the drawings exhibited by Mr. Graham were of considerable interest, notably those of the mosaic which gave the façade of a Roman house. Every architect and archæologist was very much puzzled and disappointed at finding that even in the great cities of the Phœnicians and Carthagenians, they got scarcely any Phœnician or Carthagenian remains. Mr. Davis, the British Consul, made some years ago at Carthage a series of excavations, with the view of unearthing old Carthage. In doing so he came upon a large number of mosaics, some of which were now in the British Museum. Mr. Davis believed that several of these mosaics were really Carthagenian, but he was entirely alone in that opinion; all the French and other archæologists being of opinion that they were Roman, and possibly old Roman work. Even in the home of Carthage, at Tyre itself, large excavations were made some years ago by M. Renan, when the conclusion was arrived at that it was hopeless to recover the remains of the old Phœnician work there, because it had been buried under the *débris* of centuries. They would have had to search for it through the Mahometan, Roman, and Greek buildings, so that there was hardly any chance of recovering a large Phœnician work. Thus, at present, one's knowledge of Phœnician work amounted to little more than the knowledge of a few ornaments. At the same time they could well imagine that the Phœnician work must have been very grand, because Solomon, in his greatest work, employed a Phœnician architect, although he was connected in every possible way with Egypt, a well-known artistic land. Some extraordinary work was to be found in North Africa, dating before the time of the Romans; he alluded to the large Mausoleum of Medrassen, and to another termed the Tomb of the Christian Lady. If such works were met with in Etruria or Italy, they would be put down as Etruscan; while if met with on the West Coast of Asia Minor, they would be styled Pelasgic. Then they came to the Roman works, and it was unnecessary to say anything about these, as the drawings spoke for themselves. He could not help, however, referring to the enormous extent to which Roman work was propagated in a comparatively small space of time over a large area. In any country of the old world Roman work was to be found, and work of a very

* Allusion was then made to the marble quarries of Numidia, and a brief account given of the principal marbles of North Africa, still to be obtained in large blocks and at a reasonable price.

peculiar kind, because, although the Romans used almost every form, they so altered it that no matter where it was met with, it had the stamp of the Romans upon it. He had found a very curious illustration of this a few months back in Greece. It had been generally supposed, until quite recently, that the circular temples, such as that of Tivoli, were pure Roman inventions copied from the Etruscan. This was not the case, however, for in Greece there had been found an exact copy, or rather original, of that form of temple. With the exception of the amphitheatre, he believed that every form used by the Romans was copied or adapted from the Greek, but was so altered and nationalised that in no part of the world could it be mistaken for anything but Roman work.

Mr. J. T. Wood, in seconding the vote of thanks, agreed with a great deal Prof. Hayter Lewis had said. He considered that the plans of Roman public buildings were worthy of the most careful study.

Mr. F. W. Percival agreed with Mr. Graham that the whole north coast of Africa offered a wonderful field for the study of Roman architecture. He was very much struck, in travelling in those parts, by the wonderful wealth of marbles. Over the whole of Tunisia the most marvellous variety of marbles was to be found, which might be made use of in the present day. The city of Kairwan, for instance, was a perfect museum of beautiful marbles. When the mosque there was built, the Roman cities in the neighbourhood had fallen into decay; the most beautiful marbles were therefore brought to the mosque, the remainder being built into the walls of the city and utilised as seats for the people. With regard to inscriptions, in every part of North Africa it was only necessary to excavate to arrive at a perfect treasure-house of inscriptions.

The vote of thanks was then carried by acclamation.

Mr. Graham, in replying, remarked that with regard to the Christian Basilicas, when he said that as far back as 328 their form was that of a cross with a cupola, he should rather have said it was that of a cross, the church itself at a later period being covered with a cupola. Referring to the tombs of Medrassen and of the Christian Lady, he had not mentioned these on account of the time at his disposal. He had, however, restored drawings of these tombs, which he had measured, besides some notes which he had made especially referring to the Medrassen, which was some two centuries earlier than the other. Professor Hayter Lewis, he believed, some years ago communicated a paper to the Institute on the subject of one of these tombs, and he would like to supplement the Professor's remarks by his own, which he would be happy to place at the disposal of the Institute. He would have liked to say a good deal about the Numidian marbles, having lately visited the great quarries, from which the Romans obtained their finest specimens. The quarries were extensive, the blocks of marble enormous, and the colouring very beautiful. These quarries were worked by a powerful Belgian Company, the manager of which informed him that it was contemplated to open a depôt in London. At the meeting of the British Association this autumn, a valuable and exhaustive paper on the subject of Numidian marbles generally, would be read by Col. Playfair, and he hoped the Institute would have some one there to take notes for them. Mr. Percival had referred to Tunisia, many of the cities of which he (the speaker) hoped yet to visit, and to continue his observations as far as the borders of Cyrene. He wished that some of the members of the Institute would interest themselves in the matter. In a subject of this kind there was a wealth of intellectual delight, though the amount of reading requisite for a proper grasp of it was very great. Nothing could be more interesting than Roman history, and any one who would go a little out of the track,—which he must do,—would be well rewarded by what he saw and learned. If it should not be his good fortune to continue this first series of notes, he hoped it would be the good fortune of some one else to do so.

Westward Ho!—A new pulpit has been dedicated at Westward Ho! Church. It is octagonal on plan, and has been made by Mr. Harry Hems, of Exeter.

THE OLD WALL AT BLACKFRIARS.

ANOTHER, being the lower, portion of the old wall in Little Bridge-street has just been laid bare by the demolition, to its foundations, of the Cock in St. Martin's (or Cock) court, Ludgate-hill. That tavern stood at the south-western angle of the street and the court we name. The wall is now again visible to a depth of some 12 ft. or 14 ft. below the road surface at a spot over against Evangelist-court and a little northwards of Dolphin-court. Along the northern side of Pilgrim-street may be seen the continuation of the wall between its modern brick facing and the cheesemonger's shop, whereof the cellar rests against it, that stands opposite to the site of the Cock. In March, 1882, was pulled down so much of this wall as closed the roadway of Little Bridge-street into a narrow passage at its eastern and higher end. Our readers will perhaps remember the curious opening, with a recess for the deposit of burdens, cut through the wall; which opening communicated between St. Martin's-court and the Broadway opposite to the Blue Last beyond.

The Roman wall lay further eastwards, as is clear if only from the discovery in that direction of certain contemporary graves, which by the law must have been extramural. And this Blackfriars wall is not, as is commonly supposed, an actual relic of even the later wall that here, crowning the steep declivity at whose base ran the turbulent Fleet, protected London on the west. It is the wall which the Friars Dominican set up on their removal hither from Holborn, by Lincoln's Inn, *temp.* Edward I. The Black or Preaching Friars owed this their new settlement in Castle Baynard Ward to Gregory de Rokeslé, mayor, a good friend to the Black and the Grey Friars alike. Another warm patron was Robert Kilwarby, archbishop of Canterbury, who contributed largely to the building of their monastery and church,—the latter conspicuous among the few fine churches of which London could then boast. They found high favour also with Queen Eleanor and her royal consort. The king, indeed, supplemented the gift to them of the ancient Montfitchett Tower for building material, by granting them a charter to demolish the existing London wall, and to reconstruct it so as to include the new sacred precincts. For this work it is evident that the Friars used the original masonry. Thus it came about that the wall which until then ran due south between the Old Bailey and St. Martin's, Ludgate, to the Thames, turned westwards down the now Pilgrim and Little Bridge streets, and thence made a return southwards to the riverside at a spot between Water (*antiquè* Blackfriars)-lane and the Fleet's mouth. After the fire at Ludgate-hill, 1792, a watch-tower was discovered, May 1st of that year, on the wall in this quarter. This barbican, or burgh-kenning, stood about half the way down Little Bridge-street, say by the southern end of Dolphin-court. (See J. T. Smith's view, and that in Hone's "Every-day Book," vol. ii., columns 629, 630.) We find the tower's site marked in a plan by Hollar. We may add that a magnificent fragment of the London wall was unearthed three or four weeks since. It lies between the Church of Allhallows on the Wall and the corner of Blomfield-street,—formerly Brokers'-row,—and rested upon a level nearly 20 ft. below the neighbouring "made ground." Fresh buildings will soon conceal it from view.

ARCHITECTURAL ASSOCIATION.

EXCURSION TO TILBURY.

THE eighth Saturday afternoon visit this year by the members of this Association was to Tilbury, and took place on the 16th instant. The members assembled at Fenchurch-street Railway Station, and on arriving at Tilbury Station they first visited the new Tilbury Dock Hotel, where they were received by Mr. E. A. Grüning, the architect of the building, about three p.m. The hotel is now in course of construction, and Mr. Gruning explained the working drawings and the building. The contract has been undertaken by Messrs. Perry & Co., of Tredegar Works, Bow, and it is estimated the structure will cost about 35,000*l.*, exclusive of the foundations and basement. Mr. W. H. Perry is acting as clerk of the works. Owing to the nature of the site and soil, the hotel is erected on sheet piling. The piles are 14 in. square, and are driven to an average depth of 60 ft. into the ground. Upon this piling the walls are built of stock bricks, with Fareham brick facings, but above the basement the walls are all of timber construction, and (externally) faced with plain and ornamental tiles by Doulton; this bearing lighter upon the foundations than brick construction. The basement consists of kitchens, and cellarage, and lifts,—the lifts are by Simpson. The ground-floor contains a large entrance-hall, which passes through the hotel due north and south; on the left are a reading-room, luncheon-room, and spacious bar; on the right are a large coffee-room, 86 ft. by 30 ft., exclusive of circular bay; serving-room, billiard-room, and principal staircase constructed of oak, 16 ft. wide; also three other staircases and offices. There are four floors above the ground-floor, besides attics, containing about ninety-eight bedrooms, with reception-rooms in addition. The iron girders and columns are by Messrs. Moreland, of Old-street, London, and the parquetry flooring is by Arrowsmith.

The party then visited the Tilbury Docks, which are in course of construction pursuant to an Act of Parliament obtained by the East and West India Dock Company upwards of three years ago (as noticed in the *Builder*, April 8th, 1882). The total area of the site of the docks is upwards of 500 acres, and is situated to the west of Old Tilbury Fort, by Gravesend Reach, and immediately facing the town of Gravesend. The main dock is 600 ft. wide, and is constructed on the plan adopted by the Mersey Dock Board at Liverpool, giving the maximum amount of lineal quay space, with a minimum amount of water space. The branch docks are each 1,600 ft. long by 300 ft. wide. The tidal basin is 17 acres in extent. The hydraulic engine-house is fitted with engines by Armstrong, which throw 640 tons of water per minute. The engineers are Messrs. Manning & Baines, and the present contractors are Messrs. Lucas & Aird. In the *Builder* for July 15th, 1882, and August 4th, 1883, will be found some further particulars of these very extensive works. Having explored the works, the majority of the members returned to town by the 5 p.m. train, but several of them proceeded to view Old Tilbury Fort, and returned by the following train.

THE EAST LONDON INDUSTRIAL EXHIBITION.

WHITECHAPEL and South Kensington have, at this season, a point in common. Each quarter has its own Industrial Exhibition, "inaugurated" by royalty and enjoying aristocratic favour, for, in the Drill Hall, Whitechapel-road, will be found stalls conspicuous with the names of the Marchioness of Ripon, the Countess of Rosslyn, the Lady Edith Ashley, and other titled ladies, many of whom are actually in attendance to explain or to sell the miscellaneous objects with which they are surrounded. The highest credit is, of course, due to these ladies, who are thus devoting three precious weeks of the London season to the encouragement (as they deem it) of the industries of the East end. At the same time we think such support, which must savour of patronage, ought to be unnecessary, and that with management, careful but energetic, a genuine East-end exhibition, representing what are really the distinctive industrial products of the quarter, would best promote the interests of the working classes if it were allowed to stand on its own bottom. The managers, however, would have to exercise a good deal more discrimination than seems to have been employed on the present occasion, when everything appears to have been accepted, and, as might be expected, no classification of objects has been possible. The exhibition is chaotic and the catalogue bewildering. There may be,—concealed in odd corners or overwhelmed with rubbish,—some rare specimens of art or of inventive genius, but the general impression left upon the mind of the visitor is that of a heterogeneous collection of stuffed birds, patchwork counterpanes, and woolwork flowers, fearfully and wonderfully made. A plasterer exhibits what he terms "the model of a College," made of Berlin wool, and somewhat resembling a Chinese joss-house. The grass around the building is intensely green and the industrious modeller has, with unconscious irony, written above it,—"Will last as long as most houses." Dr. Barnardo's boys are to be seen at work

upon boots and shoes and firewood, and East-end philanthropy generally is well advertised. Day & Martin have a stall where the blacking sold is a contribution to the prize fund; and,—marking, perhaps, the advance of civilisation,—no little space has been assigned to the tooth-powder of a local dentist.

The managers have recognised the fact (and the recognition is most important) that "boredom is the curse of the East End," and that, as at Kensington so also at Whitechapel, provision must be made for the mere lounger. In our visit we noticed a good many of all ages turning over the leaves of scrap-books which had been furnished for their amusement, or gazing at the curiosities lent by Mr. Jamrach. At intervals music of various kinds is performed and always secures approval,—in fact, the ear seems to have been better cultivated than the eye, for if the discord in colour which prevails were expressed in sounds there would be a general chorus of dissatisfaction.

But with all its shortcomings this East-end Exhibition has much to commend it, and will, we hope, be the precursor of something worthier of its name and less dependent upon the well-meant patronage of aristocratic stall-holders.

SCIENCE AND ART IN BUILDING.

LIVERPOOL ARCHITECTURAL AND ENGINEERING SOCIETIES.

THE following is an abstract of the paper read at the joint meeting of the above-named societies on the 13th inst. by Mr. Goldstraw:—

The paper referred to the connexion of science with building as "the application of exact knowledge of the nature of materials, and of the principles of mechanics to the planning and construction of buildings with a view to their safe and convenient use," whilst the connexion of art with buildings was said to be "the exercise of taste and skill in both design and execution for the purpose of producing a beautiful effect in the structure." Thus regarded, science and art, or utility and beauty, ought to be amalgamated in building work without neutralising each other; and the balancing of the two was the problem which every designer of buildings should endeavour to solve. For examples of this happy union reference was made to the dome of St. Paul's, the steeple of Bow Church, the Vienna Exhibition, and the arched vault over St. George's Hall. As instances where science had excluded art, mention was made of the Britannia Tubular Bridge and the new Tay Bridge. The man whose chief business it is to apply science to buildings is an engineer; but the architect must cultivate science and art together. The distinction between the two professions is very much an arbitrary one. Neither engineers nor architects have any exclusive right to the work of designing buildings and such like structures. There is no line of demarcation between the two professions. But there is a bond of union in the nature of their common pursuits.

ASSOCIATION OF MUNICIPAL AND SANITARY ENGINEERS AND SURVEYORS.

THE Midland Counties' District of the above Association had a meeting at Nottingham on Saturday last. The President, Mr. W. G. Laws, of Newcastle-on-Tyne, occupied the chair, and about thirty members were present.

Mr. George Winship, the Borough Surveyor of Abingdon, read a paper on "Some of the Advantages and Results of the Supply of Water by Meter." He affirmed that the meter system effects a great saving in the quantity of water consumed, and tends to equalise its cost, whilst water-rates often fall very unevenly upon occupiers of property in a district. The cost of meters need not be taken into account, as directly a meter was attached to a service, payment at the rate of 10 per cent. began, and it was not essential that a large stock should be kept on hand. The cost of inspection under the meter system was also greatly reduced, because it was unnecessary to inspect fittings for the purpose of detecting waste. At Abingdon, under the meter system, the consumption of water was 6 gallons per head; but if it were 15 gallons, a very ordinary quantity, 90,000 gallons of wasted water would flow into the sewers, and where it was necessary to pump this to a sewage farm, a heavy, unnecessary cost would be entailed on the ratepayers. Besides, a still more important saving would be effected, as only about one half of the land generally calculated to receive the sewage would be required. He did not wish to go into the question of the kind of meter best suited for registering small flows of water, but at Abingdon he had found Taylor's meter satisfactorily met all requirements. Consumers at Abingdon appeared thoroughly satisfied with the meter system as a basis of charge, and he had similar testimony from Malvern, where it had also effected the desired object, the prevention of waste, whilst the sanitary state of the town was second to none.

Mr. A. Brown, Borough Engineer of Nottingham, also read a paper describing five years' municipal work in that borough. He first dealt with the great extension of building, consequent on the rapid and progressive increase of the population, and then gave details of the roads and streets. There were altogether 146 miles, of which one and a quarter was paved with wood, and fifty were at present private property, but would be taken to by the Corporation almost immediately. He expressed himself strongly in favour of new streets being executed by the Corporation, as it secured uniformity, and the one fault was the strain and responsibility it threw on the borough engineer and his staff. The amount spent on private improvements in Nottingham during the last five years had been 210,000*l*. Nothing equalled beech-wood pavement, which cost 14s. per square yard, but it should always be laid on a thoroughly good concrete foundation. He then alluded to Nottingham having the reputation of having originated asphalte footpaths and asphalte macadam roads, and described some laid by Mr. Thos. Smart, in the London-road, about 1840. Then he gave details of asphalte, of which an area equal to 20 acres had been laid down in Nottingham, within the last five years, at a cost of 1s. 4½d. per superficial yard. He next described the Back Valley sewer, executed to save the district from periodical flooding. It cost 40,000*l*., and was carried under Sneinton Hill, the cemetery, and the Midland Railway, direct to the Trent. Mr. Brown next described the mode of dealing with the sewage by the pail system, which was introduced into the borough about twelve years ago by the late Mr. Williams. There are now 21,155 pails in use, and whilst in 1881 the number charged was 1,294,860, in 1884 it was 2,240,899, an increase in four years of 73 per cent. In 1884 there were 40,000 tons of matter brought in pails, and the sales amounted to 75,000 tons, including ash-pits and privies, and produced 7,145*l*., about 1s. 6d. per ton. About 6,000 tons of dry material were carted to Fryer's destructor and burned. The destructors did their work thoroughly and well, and he had not seen anything that answered the purpose better. The pail system was an undoubted advance upon the old midden system, but that it is a perfect system could not be maintained. Having described the Lenton and Gregory boulevards, and the Radford boulevard, the principal new streets, Mr. Brown summarised the expenditure of five years as 667,000*l*.

In the subsequent discussion on these papers,

Mr. Pritchard (Birmingham) admitted that meters would naturally curtail the consumption of water, but it was very undesirable on sanitary grounds to restrict the supply of water to houses. Waste could be quite as effectually prevented by house-to-house inspection and other means as by meters.

Mr. Gordon (Leicester) also held that to restrict the water supply for household purposes by anything like a charge according to the quantity of water consumed, was altogether wrong in principle. It was a retrograde step to advocate meters being used for any such purpose; and the cost would fall still heavier on the lower classes, who ought rather to be encouraged to use water freely for baths and other sanitary purposes.

Mr. Fowler (Manchester), Mr. F. Carter (Leicester), Mr. Comber (Kidderminster), and the President expressed similar views.

Mr. Godfrey (Leicester) opened the discussion on Mr. Brown's paper, and spoke in commendation of everything they had seen, except the pail system of dealing with the refuse. He admitted that it was well managed, but, though they had the pail system partially in use in Leicester, he must, as a member of that Association, denounce the system as wrong in principle from beginning to end. The mixture of light ashes with the contents of the pails, done in Nottingham by lifting the seats, helped to prevent the decomposition of the matter, but in the majority of towns it was left until it was in a condition highly dangerous to the health of the people using the pails.

The discussion was continued by Mr. Lobley (Hanley), Alderman Ford (Nottingham), and other gentlemen.

BUILDING IN PRIVATE AREAS.

THE METROPOLITAN BOARD OF WORKS *v.* MOWLEM AND CO.

AT the Westminster Police-court, the above defendants appeared before Mr. D'Eyncourt to answer four adjourned summonses,—first, for laying out a road, passage, or way as a street without the consent of the Board; secondly, for laying out a footway of less width than 20 ft.; thirdly, for forming the same without being open at both ends; and fourthly, for building without giving direct communication between two streets.

Mr. D'Eyncourt now gave judgment. Having stated the facts, which appeared in our issue of the 9th inst. [p. 672], he said that he was of the opinion that the place was not a "street" within the meaning of the Metropolis Local Management Act, nor a "new street" within the scope of that Act. No doubt the widest interpretation could fairly be assigned to the meaning of the word "street" in the various Acts; it included any footway, lane, square, court, alley, &c., whether a thoroughfare or not. Still, it appeared, in his judgment, that the right of public use was always contemplated. In this case the owners reserved the right of excluding the public at night, and they would also light and pave the place. He could not see why it should be held to be a "street," because it was not covered over. In the case of Lord Auckland *v.* the Westminster Board of Works, a case cited and relied upon by counsel for the defendants, old buildings had been pulled down (as in this case) and new ones erected, and it was decided that the Metropolitan Board of Works could not call upon the builder to comply with the requirements as to new streets, but must proceed in another way, first giving compensation to the owner for any change. In the present case great care had been taken to avoid a dedication to the public. He dismissed all the summonses, and allowed ten guineas costs.

Notice of appeal was given on behalf of the Metropolitan Board of Works.

CASES UNDER THE METROPOLITAN BUILDING ACT.

SOFT BRICKS IN EXTERNAL WALLS.

THIS case, heard before Mr. De Rutzen at the Marylebone Police Court, raised a point under the Metropolis Management and Building Acts Amendment Act, 1878. The District Surveyor for St. Pancras North (Mr. Alfred Bovill) applied for a penalty against Mr. R. L. Fedrich, builder, for having used in the construction of the external walls of two houses in Estelle-road, Gospel Oak, bricks which were not good, hard, sound, well-burned bricks, as required by the By-laws of the Metropolitan Board of Works.

The summons was first heard on the 22nd of April, the evidence of the District Surveyor being that the bricks used in the internal parts of the external walls of the houses in question, samples of which he produced, were not such as were required by the By-law.

In support of his case, defendant's counsel called Mr. H. H. Bridgman, architect, who stated that the bricks used and complained of by the District Surveyor were good, hard, sound, well-burned bricks. The bricklayer engaged in executing the work also gave evidence to the same effect. The Magistrate desired to have further evidence, and adjourned the case for that purpose, and on the adjourned hearing (April 29th), Mr. F. Wallen, District Surveyor for St. Pancras West, and Mr. F. Hammond, District Surveyor for North-West Islington, gave evidence in support of the complainant's contention.

The defendant called, in further support of his case, Mr. Francis Chambers, who stated that he had a large experience in building, and was a Fellow of the Royal Institute of British Architects, and one of the Examiners appointed by the Institute for the qualifying examination for the appointment of District Surveyor. He had inspected the buildings and found them built of good bricks. The worst of the three samples produced was such as he would accept as acting for a ground landlord, but not such as he would permit to be used for a private client.

In answer to the Magistrate, Mr. Chambers stated he should object to the brick in question for the latter purpose on account of its appearance.

Mr. H. H. Bridgman, re-called, said that he considered that the worst of the three bricks produced satisfied the By-law.

Evidence to the same effect was given by Mr. Wright, and by an assistant to Messrs. Drivers, surveyors to the freeholder.

The Magistrate again adjourned the case in order

to enable him to inspect the buildings. On the 30th of April, the Magistrate made an examination of the work, accompanied by the District Surveyor, and (on the part of the defendants) by Mr. H. H. Bridgman.

On the 4th inst. the Magistrate stated that having heard the evidence on both sides, and himself examined the buildings, and also, since, a large number of bricks, he came to the conclusion that the complaint of the District Surveyor was well founded, but he considered the better plan to adopt was to give the builder time to amend the work, rather than impose a penalty.

The case was, therefore, further adjourned for twenty-eight days.

FEES FOR GREENHOUSES.

On April 21st, at Lambeth Police, before Mr. Chance, Mr. George Elkington, District Surveyor of Penge, summoned Mr. E. B. Haynes, nurseryman, of Beckenham-road, Penge, for 1*l.*, District Surveyor's fee due in respect of a greenhouse erected by the latter.

The plaintiff proved that the defendant had recently erected a greenhouse, 22 ft. 6 in. long, 12 ft. wide, and 5 ft. 3 in. in height to eaves, the lower part enclosed to the height of 3 ft., with 9 in. brickwork, the upper part consisting of the usual sashes, &c. The building was about 12 ft. distant from the road, but within 10 ft. there were other similar greenhouses. He had tried to obtain notice from the defendant, who denied his authority. Failing to obtain notice he sent in his claim for fee as the structure was, in his opinion, in conformity with the Building Act. He now quoted numerous cases in which magistrates had held that greenhouses were buildings.

The defendant, in the course of a long argument, contended that the structure in question was exempt, as it was used for the purpose of his trade, and under his lease he could remove it, and also that it was exempt by its construction and by distance, as it was more than 30 ft. distant from other buildings except greenhouses.

The learned Magistrate having intimated that he was so far in favour of the plaintiff, the case was adjourned at the request of the defendant until the 14th of May.

At the adjourned hearing, the District Surveyor was represented by Mr. Milner Jutsum, solicitor.

Mr. Chance, after hearing further arguments, decided that the structure in question was a building within the terms of the Act. He, therefore, made an order upon the defendant to pay the amount claimed, and allowed one guinea costs.

THE REFORM OF THE INSTITUTE.

SIR,—As several friends have again written me to inquire the manner in which I purpose federating the members of the profession, I find it more convenient to write one instead of many letters, and shall feel, therefore, obliged if you will insert this reply. I have taken, and still take, the Law Society as my model. We all know that before a lawyer can practise he must be articled and pass an examination (serving articles I would not press; if the candidate on examination proves he is competent, I would not inquire of the channel through which the knowledge came to him); he can then, by paying an annual tax, practise, and, whether he belongs to any association or not, he is bound by the rules of the Law Society. In the provinces associations are formed for convenience, professional questions are discussed, papers are read, and the proceedings resemble those at the central association. At the annual meeting of the Law Society, all members of the profession may attend. If they are members of the Law Institution, they have the privilege not only of voting, but of using both library and club (a club should be attached to our Institute, and would prove a commercial success). It is usual to elect prominent provincial members on the council of the central body, and all must be loyal to it. The new Charter should cover all existing architectural associations. Some may demur to this, as it might be a recognition of doubtful merit in some cases; but this done, and the stream kept pure by examination, time would purify the original body. Can anything be more simple? There would be a gain all round, and no sacrifice of independence. And as to federation, unless the Institute stultifies itself it cannot ignore it, since it has admitted the principle by electing leading men from the provinces, and notably the President of the Architectural Association. I press this question of examination and federation upon the profession earnestly, in view of the torrent of draughtsmen that will be let out upon us by the technical schools and the Board schools. That is the day of reckoning with which we shall be shortly confronted, and although "too late" is a fashionable policy just now, it is far better for ourselves, and it will be better for the public, if we at once federate, organise, and close the door.

THOS. E. KNIGHTLEY.

CHELSEA VESTRY-HALL COMPETITION.

SIR,—In last week's issue of the *Builder* [p. 705], you imply that the retiring-rooms at the end of the hall in our design have been added since the plans were sent in, to supply a deficiency in the original plan. Will you allow us to say that the published plan shows the arrangements submitted on the competition drawings, and that no alterations whatever have been made since the design was sent in? The retiring-rooms were shown in two ways,—in one placed in the basement under the end of the Vestry-hall, approached by stairs in the corners of the hall, and in the other placed on the ground-floor, shown upon a flap as an alternative arrangement. This may have been folded back when the drawings were examined for your report, and the arrangements thus overlooked, but how the first arrangement was lost sight of we cannot quite understand.

As your remarks may lead some people to suppose that either we had friends at court, or a special favour conferred upon us, and thus obtained an undue advantage over the other competitors, we shall be glad if you will kindly spare the space for this in your next issne.

ARTHUR H. NEWMAN.

*** Our remark referred only to the plan we published, which certainly left on us (and on others who were present) the impression of having no proper access to the stage end of the hall.

MIXING PORTLAND CEMENT WITH LIME MORTAR.

SIR,—A few weeks since [*Builder*, p. 567, *ante*], in reply to a correspondent I gave my experience of the above. I forget your correspondent's name, and the initial letter which I subscribed to my reply; but I wish to draw his and your readers' attention to the following extract from the second edition of the book of Mr. Thorold Rogers, M.P., on "Ensilage" and the construction of Silos. He says, pp. 99-100, after describing lime concrete in the proportion of one part of lime to seven parts of other materials (sand and gravel),—"The addition of one-fourth cement (meaning Portland or similar cement), the lime being reduced to three-fourths of one part, and the cement being added after the mortar is mixed, makes a much quicker setting and *harder* concrete."

This corroborates my experience, as given in my letter to you above referred to, both as to the *modus operandi* as applied to mortar, and as to the result; the only difference being that I gauged the cement with sand and water before mixing it with the lime mortar.

L.

THE ASHPITEL PRIZE.

SIR,—A letter from "A. B. C." in your last issue [p. 708] calls attention to the fact that the Ashpitel Prize has been withheld for two years; further, that the prize was instituted about 1873.

Now the first Voluntary Architectural Examination took place in 1862; would it not be a gracious act on the part of the Council of the Institute to make the reward retrospective, and to give the two prizes not awarded to those candidates who passed the most successfully in past years? A precedent for this would be found in the case of the Pugin students who this year had medals awarded to them going back to the first recipient of the prize.

X. Y. Z.

UNEMPLOYED LABOUR.

SIR,—One missing link in the problem of unemployed labour is the absence of any adequate means for the diffusion of intelligence with regard to the wants of employers. Prisoners and paupers receive help; surely the class of deserving poor who seek for work often in vain are worthy of our attention. The friends of the Collier's Rents Mission have for some time past been quietly working, getting situations for men whom they have previously tested. And they could to a much larger extent succeed in alleviating the hopeless misery of men who wear out their strength and resources in the fruitless search for work, if they were only promptly made acquainted with the requirements of employers of labour. Will you kindly assist in making it known as widely as possible that in future a Register will be kept at this Hall of the requirements of employers, and that we shall be happy to attend to and register applications from employers free of charge? Address honorary superintendent, Collier's Rents Mission Hall, Southwark, S.E.

J. B. RUDDUCK, Hon. Supt.

May 20, 1885.

The Student's Column.

DESCRIPTIVE GEOMETRY.—XVI.

Draw the plan elevation and shadow of a dodecahedron in any position you please.

BY the means of a succession of elevations and plans we get the projections as in fig. 84; the shadow is nothing but the intersection of a prism by planes: we can find it by any of the methods described above. To construct the plan and elevation of the dodecahedron in its first position when resting on the plane of the plan, we first draw on the plan the pentagon 1, 2, 3, 4, 5 (observe we do not put the sign ^{h}, because 1, 2, 3, 4, 5 are the points themselves, not their plans). Suppose that the pentagonal faces of this solid, which are contiguous to the face 1, 2, 3, 4, 5, have all been folded down upon it, and you open them up to place them in position, their points will rotate round the different arrises of pentagon 1, 2, 3, 4, 5, until their upright sides are made to meet. For instance, if the pentagon 1, 2, 3, 4, 5 rotates round its side 4, 5, the point 1 will travel in space in a vertical plane, the horizontal trace of which is 1, α; if the pentagon rotates round its side 5, 1, then the point 4 will rotate in a vertical plane, the trace of which is 4, γ; therefore, the point 6^h, where the traces 1, α and 4, γ cross one another is the plan of the point in space where the points 1 and 4 have met; in other words, it is the plan of the point 6 of the dodecahedron. On account of the symmetry of this solid we know that all the other angles will be on the same circle as the point 6, and therefore we can easily complete the plan of the dodecahedron. To find the heights of the points 6 and 11 above the plane of the plan, we make an auxiliary elevation with $L^1 T^1$ taken on the line 1, α, and we draw thereon the circles described by the points 1 and 2 of the base pentagon when rotating round its side 4, 5, from which circles we deduct the elevations 6^{v1} and 11^{v1}; their heights α, 11^{v1}, and γ, 6^{v1}, give the heights to be carried on our elevation for all the angles of the solid which are on the same level. As the dodecahedron is symmetrical, we can then readily complete the elevation and draw thereon a slab, as in our diagram.

The second position of the solid is theoretically found by making it rotate round a horizontal axis A, but practically the exact elevation is re-drawn in any position we like, and a new plan is deducted therefrom. Again, the third position is the result of a rotation round a vertical axis, which simply shifts the plan without changing its form, but gives an entirely new elevation.

There are three shadows to be considered and two shades. There is, firstly, the shadow cast on the ground by the rectangular slab; secondly, the shadow cast on the ground by the dodecahedron; thirdly, the shadow cast on the slab by the dodecahedron.

The shades are those parts of the slab and the dodecahedron which receive no ray of light. The shadows on the ground will be marked $()_2$; the shadows on the slab $()_3$.

We have already used oblique projections. To find the shadows on the ground we shall make oblique projections of the slab and the dodecahedron parallel to the direction of the rays of light R^h, R^v. The outlines of these oblique projections are the outlines of the shadows on the ground, and both in elevation and plan the arrises which correspond to the outlines of the shadow form the separating limits between light and shade.

As to the shadow which the dodecahedron casts on the slab, we know the arrises which will cast it, for they belong to the limits of the shade, and their shadows on the ground will fall within the shadows of the slab. Angle 11, therefore, casts a shadow on the slab. We could find its shadow, 11_3, by cutting the slab by the vertical plane which contains the ray of light through point 11; then finding the point $11_3{}^v$, where the ray cuts it on the elevation. This would be the regular way to follow in most cases, but here we have used an artifice which gives us a more rapid result. Observe on the ground X_2 is the point where the shadows of the slab and the dodecahedron meet; therefore, if we travel backwards on the ray of light from X_2, we shall find a point X on the edge of the slab, which belongs to the shadow on the slab of the arris 11, 10, of the dodecahedron. Likewise, if we prolong 10_2, 11_2, shadow of the arris 11, 10, until it meet

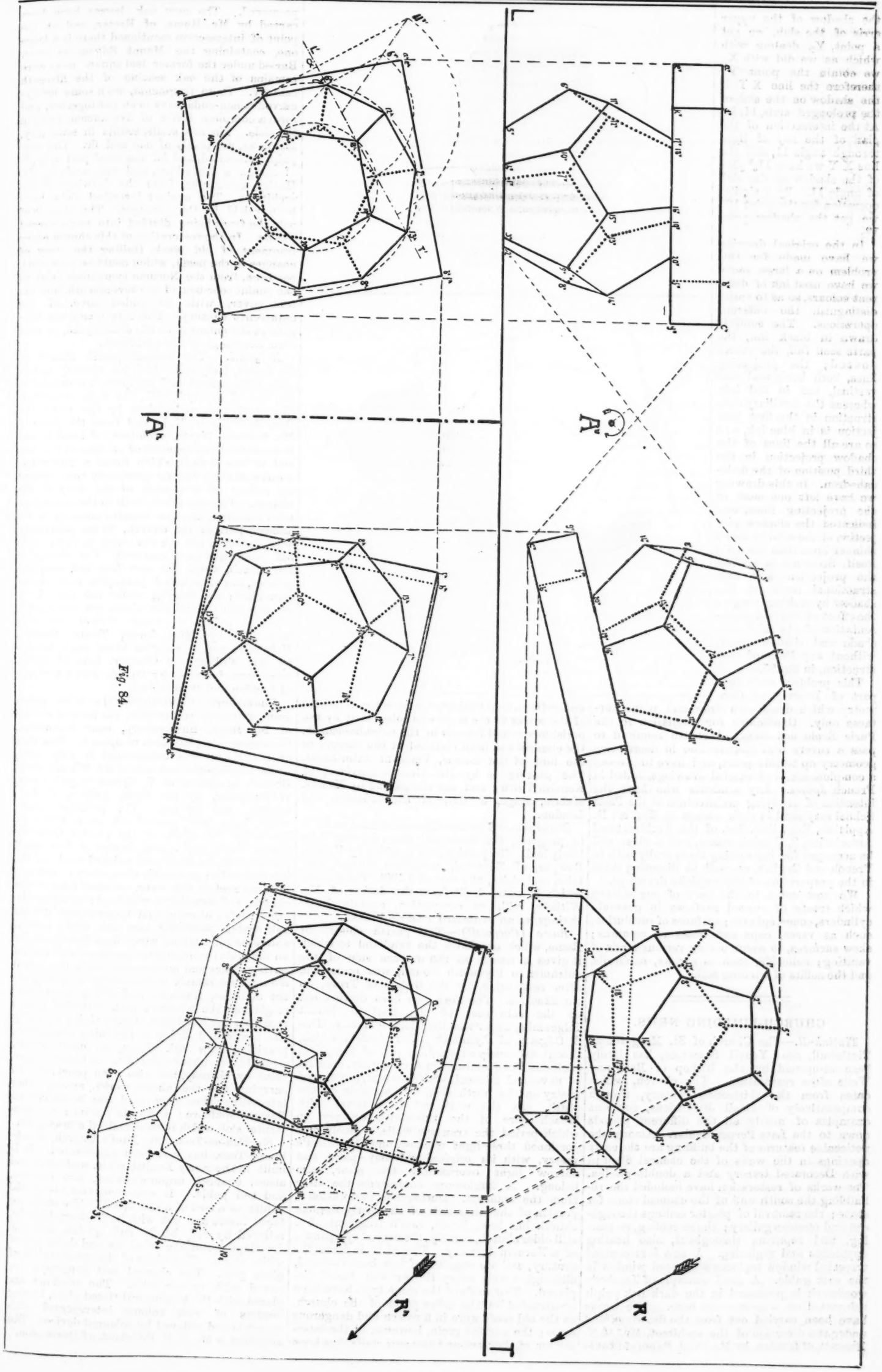


Fig. 84.

the shadow of the upper arris of the slab, we get a point, Y_2, dealing with which as we did with X_2, we obtain the point Y; therefore the line X Y is the shadow on the slab of the prolonged arris, 11, 10. At the intersection of the plan of the ray of light through angle 11, and the line X Y we have $11_3{}^h$ plan of the shadow on the slab of angle 11. By a similar operation for the point 13^2, we get the shadow point 13_3.

In the original drawing we have made for this problem on a large scale, we have used ink of different colours, so as to easily distinguish the different operations. The solid is drawn in black ink, the parts seen full, the others dotted; the projecting lines, both horizontal and vertical, are in red ink, whereas the auxiliary construction in the first projection is in blue ink, and so are all the lines of the shadow projection in the third position of the dodecahedron. In this drawing we have left out most of the projecting lines, and indicated the shadow projection of the solid by much thinner lines than the solid itself. So as not to confuse the projection and constructional lines of the shadow by etching, we give the effect of the last representation of the solid with shade and shadow apart, without any lines of construction, in fig. 85.

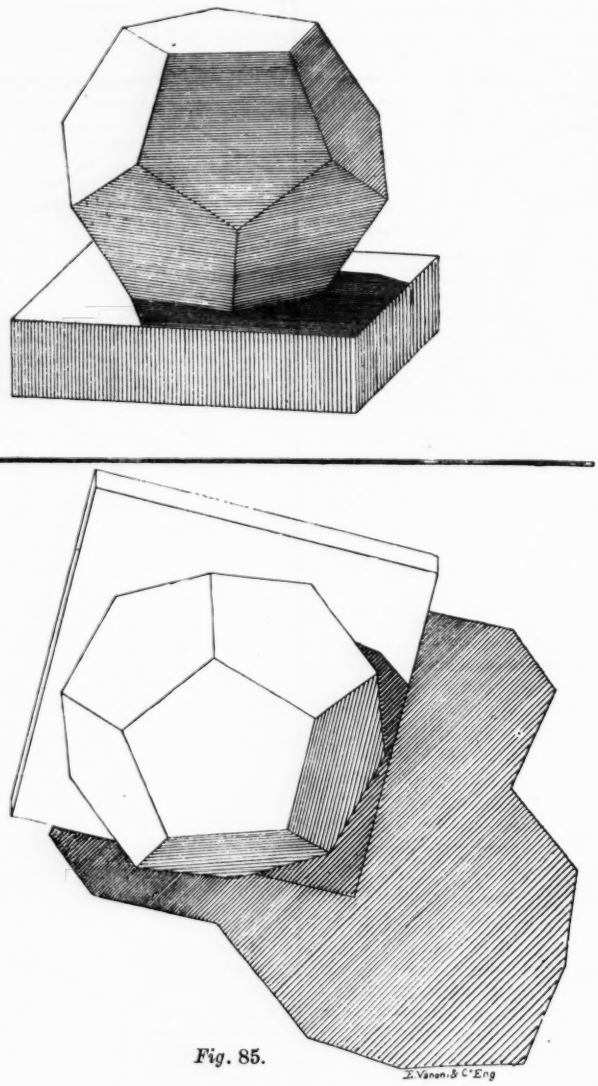


Fig. 85.

This problem ends that part of Descriptive Geometry which deals with lines and plane surfaces only. Candidates for admission to the Paris École des Beaux Arts are required to pass a severe oral examination in descriptive geometry up to this point, and have to present a complete series of careful drawings, called in French *épures*. Any students who have the intention of studying architecture at the Paris School may send in their names to Herbert D. Appleton, Esq., Hon. Sec. of the Architectural Association, 9, Conduit-street, and a class will be arranged for instructing them orally both in French and English, as well as directing them in the preparation of the requisite drawings.

We now come to the part of our science which treats of curved surfaces in general: cylinders, cones, spheres; surfaces of revolution, such as vases, caps and bases of columns; skew surfaces, to which belong various kinds of vaulting; helicoids, such as screws, handrails, and the soffits of winding stairs.

CHURCH-BUILDING NEWS.

Tintinhull.—The Church of St. Margaret at Tintinhull, near Yeovil, Somerset, has lately been re-opened by the Bishop of Bath and Wells after restoration. The church, which dates from the thirteenth century, though comparatively of small dimensions, contains examples of nearly all the different periods down to the Late Perpendicular. Among the noticeable features of the building are the early openings in the walls of the chancel filled in with Decorated tracery and a double piscina. The works of restoration have included the rebuilding the south wall of the chancel stone for stone; the removal of plaster ceilings throughout and western gallery; the re-roofing, re-seating, and repaving throughout, also heating apparatus and reglazing. A new four-centred traceried window replaces a debased window in the east gable. A good example of Jacobean woodwork is possessed in the dark oak pulpit reinstated on a new stone base. The works have been carried out from the drawings and under the direction of the architect, Mr. A. N. Hansell, of London, by Mr. Fred. Fane, of Stoke-under-Ham, near Ilminster, contractor. The cost of the works to the nave was subscribed by the parishioners and friends in the neighbourhood; the chancel has been restored at the charges of the lord of the manor, Viscount Arbuthnott. The glazing is by Mr. George Luxford, of Kentish Town; and the tile paving by Messrs. Malkin, Edge, & Co., of Staffordshire and London.

Streatham.—The new Church of St. Anselm is in progress, the memorial stone having been lately laid. The portion now erecting by Messrs. Bowyer, of Norwood, comprises chancel, vestries, and aisles, at a cost of 3,500*l.* The church, which is being built from the design of Mr. Withers, will, on completion, contain 1,000 sittings, at an estimated cost of 12,000*l.*

Rame (*Cornwall*).—The parish church of Rame, which overlooks the headland to which it gives a name, on the western side of the entrance to Plymouth Sound, was re-opened, after restoration, by the Bishop of Truro, on the 22nd ult. The work has been carried out at the sole cost of the Earl of Mount Edgcumbe, under the direction of Messrs. Hine & Odgers, of Plymouth. The church, which, though extremely exposed, is one of the oldest ecclesiastical structures in the country, consists of nave and chancel, with transept, porch, and vestry on the north side, and an aisle on the south. At the west end is a tower with broach spire of the thirteenth century, to which period the transept walls, a finely-proportioned three-light window, and the priest's vestry, with its original chimney-piece and narrow light overlooking the altar, also belong. A hagioscope commands the altar from the transept. During the restoration a portion of the altar-slab of the Early English church has been found, and a fragment of a still older church, namely, the carved tympanum of a Norman doorway. The aisle is fifteenth-century, and its wagon-roof has been restored, although nearly every timber was found displaced. New roofs of the same type have been constructed in the other parts of the church, as the old roofs were in a rotten and dangerous state; the ancient groin, however, at the intersection of the nave and transept roofs, has been preserved. The new oak bosses have been carved by Mr. Hems, of Exeter, and at the point of intersection mentioned there is a large one, containing the Mount Edgcumbe arms. Buried under the former deal square pews were remains of the oak seating of the fifteenth century. These fragments, with some boldly-carved bench-ends, have been put together, and form a complete series of five ancient pews in the aisle. The new stalls, sedilia in sanctuary, and pews, are partly of oak and fir. The new pulpit, traceried, and for the most part open, is of oak on a stone base, and was made by Mr. Hasley, contractor, from the drawings of the architects. The ancient inscribed slabs have been relaid in the passages. The altar is of oak, the front being divided into seven carved panels. In the restoration of this church every fragment of old work (telling the story of changes in the past), which could be preserved, has been, from the Norman tympanum down to the quaint poor-box, of the seventeenth, and the font cover, with its gilded dove, of the eighteenth century. There is a new oak lich-gate at the entrance to the churchyard, erected from the design of the architects.

Holywell.—The ancient parish church of St. James, Holywell, which has recently undergone enlargement and complete restoration at the cost of nearly 3,000*l.*, has been re-opened. The work was undertaken by the vicar, the Rev. R. Williams, M.A., and from the plans of Mr. Mathew Wyatt, architect, of London, and it consists of the erection of an apse at the east end of the church, which forms a sacrarium, a quasi-chancel having previously been formed by railing off a portion of the body of the church. The organ-loft, built in the tower, has been removed, and the massive masonry in the ancient part of the church, which previously was plastered, has been brought to view. The old pews have been removed. The sittings in the church, which are now free and unappropriated, are of oak and pitch-pine stained and varnished; the flooring under the seats is of wooden blocks, and the aisles are paved with tiles. A pulpit of carved walnut has been presented by Miss Jones, Tower Garden, Holywell; and a massive brass eagle lectern by Mr. Williams, of Chester, both of which were manufactured by Messrs. Jones & Willis, of London and Birmingham.

Hawkesbury (*Gloucestershire*).—After undergoing extensive restoration, the ancient church of St. Mary, Hawkesbury, near Badminton, Gloucestershire, has been re-opened. The work of restoration was commenced in July, 1882, under the superintendence of Mr. William Wood Bethell, architect, of 7, Queen Anne's-gate, Westminster, by Mr. Gyde, builder, of Pitt-combe, near Stroud. The principal works which have been carried out are as follow:—Removing the whole of the plaster from the inside walls and roofs, except a few small portions of the Mediæval painted work on the interior walls; removing the gallery; putting a new oak roof on the nave, an exact copy of the old one, and covering it with lead; repairing the other roofs; altering and re-arranging the old oak seats; providing new oak stalls, sedilia, and altar-rail; laying wood block flooring under all the seats; re-laying the passages with the old paving stones and monumental slabs (the mural monuments remain untouched); repairing all the mullions, traceries, and string-courses and re-glazing the windows with cathedral glass; repairing the handsome stone pulpit; repairing the tower and fixing a lightning-conductor; providing new oak doors, a tower screen, wrought-iron chandeliers, &c. A heating apparatus by Grundy has also been provided. In carrying out the above works, among other interesting relics discovered may be noticed an Easter sepulchre; a double piscina; a monumental slab which once contained a brass; &c.

Stockton-on-Tees.—St. Paul's Church, Stockton-on-Tees, has just been consecrated. It is built in the Early English style, with nave and aisles, chancel, organ-chamber, two vestries, and bell gable. It accommodates about 450 adults, at a cost of about 2,800*l.* The walls are faced inside and out with buff-coloured bricks, relieved by red bands and quoins, and the dressings round the windows and doors are of white stone. The whole of the woodwork is of pitch pine. The chancel and gangways are paved with mosaic tiles. The windows are glazed with thick cathedral tinted glass, having borders of rich colours interspersed with roundels and relieved by coloured devices. The architect is Mr. J. P. Pritchett, of Darlington.

RECENT PATENTS.

ABSTRACTS OF SPECIFICATIONS.

9,939. Roofing Tiles. W. Finch.

The tiles are corrugated, and butt against each other at the top of the ridge. The meeting-faces of the tiles are grooved for the purpose of forming a channel to carry down any water that may leak between them. The tile is first moulded with plain edges, and then partially dried. The grooves and usual buttons and nail-holes are afterwards produced in a second mould.

2,634, Glass and other Roofing. C. Fowler, Leeds.

The sash-bars are rebated on the edge of the top side, and sheets of glass or slates, &c., are laid with their edges in the rebates. The glass or other material is fixed by a strip of wood or metal, which is fastened by screws, and between which and the glass a layer of suitable packing is placed. Grooves are formed along the sash-bar on each side to carry away the water condensing on the inner side of the roof.

2,885. Asbestos or other Millboard. R. L. Kirlew.

The millboard is made impervious to the action of acids and of heat, and is rendered heavier by impregnating it while in a state of pulp with a definite quantity of salt or other chemical substance of like nature. It may then be used for fireproofing or similar purposes.

3,147. Fire-grate. G. Dyer.

The front bars, instead of being round or square, are made broad and thin, and inclined downwards to the fire at an angle of about 45° to prevent the fuel falling out when the fire is stirred.

3,243. Roofing Tiles. W. Vincent.

Projecting lugs are formed on the upper edges of the backs of the tiles by which they are hung on the laths. The corners are cut away and wedge-shaped blocks formed of the backs of the tiles fit into recesses thus produced.

3,329. Roof Gutters. G. Kay.

The screw or bolt by which the gutter-pipes are fixed together at the joint is utilised to attach a clamp by which they are fastened to the hangers on the roof.

APPLICATIONS FOR LETTERS PATENT.

May 8.—5,684, T. Helliwell, Glazing and Fixing Sheets of Glass, &c.—5,705, A. Blew, Fire Escapes, applicable also for Ventilating Buildings.

May 11.—5,763, P. Walker, Improvements in Ventilators.—5,767, G. Campbell, Improvements in Fire-grates.—5,769, G. Budd, Ornamental Turning and Shaping Apparatus.—5,770, J. Shanks, Improvements in Lavatories.—5,773, H. Gull, Water Waste-preventers.—5,774, S. Booth, Water Slide Gas Chandeliers or Gaseliers.

May 12.—5,798, G. Crowther, Receptacle for Paints, Stains, and Brushes.—5,801, C. Brotherhood, Electric Bell Pushes, Contact Makers and Indicators.—5,832, H. Haddan, Disinfecting Water-closets.—5,849, J. Pickford, Apparatus for Extinguishing Fires.—5,855, A. Clark, Machine for Sawing off and Boring Wheel Felloes.

May 13.—5,868, A. Davies and J. Langley, Combined Gas Pliers and Pipe-cutter.—5,870, H. Sutcliffe, Chimney Tops.—5,896, J. Lewis, Improvements in Gas Burners.

May 14.—5,913, H. Waldron, Fixing and Securing Door-knobs and Latch and Lock Furniture.—5,916, J. Quarmby, Improved Window-sash Fastener.—5,948, J. Stallard, Improvements in Furnaces, Stoves, and Fireplaces.—5,956, W. Lester, Astragals or Glazing Bars for Roofs, Windows, &c.

PROVISIONAL SPECIFICATIONS ACCEPTED.

2,817, E. Aldous, Ventilating Apparatus.—4,018, E. and E. H. Ludlow, Adjusting and Attaching Door Knobs to Spindles.—4,344, J. Gibbard, Wooden Block Flooring and Lining for Walls.—4,345, W. Sidgwick and J. Day, Latch Locks.—4,403, M. Conrath, Embossed Wall and Ceiling Decorations.—4,449, T. Elsley, Casement Stays.—4,754, G. Osborn, Apparatus for Printing on Wall Paper, &c.—4,873, W. Leggott, Window and Door Fastening Bars.—4,891, R. Stoffert and T. Dykes, Construction of Girders.—5,042, J. Howlett and T. Panario, Water Waste Preventing Cisterns.—5,094, S. Sutcliffe, Tile Hearths and Cheeks of Grates and Fireplaces.—5,102, H. Smith, Improved Paint or Pigment.—15,613, F. Watts, Water Waste Preventers.—17,103, A. Mullerd, Venetian Blind Laths.—4,441, W. Tapp, Improved Construction of Tiles for Stairs.—4,627, J. Watt, Automatic Closing Apparatus for Doors.—4,869, R. Duncan, Domestic Firegrates.—4,886, J. Eaton and F. Morris, Improvements in Sliding Sashes.—4,901, W. Pinkerton, Spring Hinges.—5,018, J. Walker, Cupboard Turns.—5,086, W. Taylor, Circular Staircases.—5,286, S. Luke, Church Window Ventilators.

COMPLETE SPECIFICATIONS ACCEPTED.

Open to opposition for two months.

7,946, H. Talbot, Ventilating Flue Bricks.—10,290, J. Formby and C. Keizer, Travelling Cat-head Hoist Apparatus.—10,622, C. Tebbutt, Bricks for Paving Stables and Stable Yards.—10,705, A. Attwood, Grilles for Protecting Shop Fronts.—16,860, H. Marks, Self-acting Water Closets.—4,337, C. Marples, Attaching Nuts to Spokeshaves, &c.—4,379, H. Ibbotson, Opening and Closing Sash Windows.—10,429, W. Messent, Folding Shop-window Stand.—10,835, G. Gowings, Scraper for Cleaning Drains.—15,506, S. Owen, Improvements in Baths.—15,628, Baron de Liebhaber, Colouring Stone, Marble, and other Materials for Building.—73, W. Sanderson and T. Moffitt, Door Latches and Catches.—948, C. Longbottom, Door-knobs or Handles, and Fixing same to Spindles.—4,245, C. Longbottom, New Window-sash and Door Fastener.—4,539, H. Haddan, Improved Roof Covering.

RECENT SALES OF PROPERTY.

ESTATE EXCHANGE REPORT.

MAY 11.

By E. M. WHITTINGHAM.

Ealing Park—An enclosure of freehold land, 6a. 3r. 27p. £2,750

By DOWSETT & WOODS.

Chalk Farm-road—Nos. 24 and 25, term 45 years, ground-rent 15*l.* 1,710
Kentish Town—5 and 6, Grange-road, and 21A, Leybourne-road, 51 years, ground-rent 11*l.* 830
Commercial-road, E.—Nos. 502 to 508 even, 6 years, ground-rent 24*l.* 350

By Mr. WOODS.

Heston—"Hall Place," with stabling and grounds 1,400
Five freehold cottages 820

MAY 12.

By ALFRED RICHARDS.

Westminster—An improved rent of 41*l.* 5s. a year, term 21 years 300

By C. & H. WHITE.

Lavender Hill—18, Gowrie-road, 85 years, ground-rent 5*l.* 240
Old Kent-road—51, Mina-road, 36 years, ground-rent 4*l.* 230

By DEBENHAM, TEWSON, & Co.

Regent's Park, Avenue-road—"The Poplars," and 2¼ acres; also a profit rental of 105*l.* a year, term for the whole 54 years, ground-rent 240*l.* 8,050
Holborn—18, Red Lion-street, freehold 1,800
Bayswater—43, Hereford-road, freehold 2,410
South Kensington—9, Hogarth-road, freehold 1,560
Bayswater—4, 5, and 6, Archer-street, 59 years, ground-rent 22*l.* 1s. 1,710
Blackheath—132, Shooter's Hill-road, 73 years, ground-rent 12*l.* 10s. 1,400

By ROGERS, CHAPMAN, & THOMAS.

Westminster—102, 102A, 104, to 110 even, Regency-street; and 2 to 10 even, Douglas-street, 15 years, ground-rent 1*l.* 13s. 6d. 2,300
Burton Crescent—9, Burton-street, 20½ years, ground-rent 21*l.* 175
Mitcham, Church-road—Five freehold cottages 500
Eight plots of freehold land, 10a. 1r. 34p. in six lots 2,505
A plot of freehold land, 2a. 2r. 24p. 550

MAY 13.

By RANDALL & BEARD.

Shepherd's Bush—1 and 2, Sandringham-villas, 68 years, ground-rent 1s. 325
Turnham Green—5, Arlington Park-gardens, 93 years, ground-rent 9*l.* 9s. —..... 330

By E. F. TAYLOR.

New Barnet—A plot of freehold land 150

MAY 14.

By JAMES GURNEY.

Bucks, near Chesham—An enclosure of freehold land, 16a. 2r. 9p. 800

By DEBENHAM, TEWSON, & Co.

Forest Hill—The residence "Observatory House," 81 years, ground-rent 54*l.* 10s. 3,000
Enfield—Freehold residence and cottage, and 1a. 1r. 15p. 1,025
Bethnal-green—58, Pollard's-row, freehold 575

By E. STIMSON.

Walworth—42, 44, and 46, Hill-street, 5 years, ground-rent 7*l.* 13s. 165
Bermondsey—23, 24, and 25, Nelson-street; 1 to 5, West-place; 1 to 5, Charlotte-place; and 13 and 14, West-street, 73 years, ground-rent, 102*l.* 13s. 1,550
36 to 40, Nelson-street, and 127, Long-lane, 72 years, ground-rent 210*l.* 2,500

By GLASIER & SONS.

Stroud Green—17, Granville-road, 93 years, ground-rent, 10*l.* 10s. 670
Wandsworth Common—Rotherstone House, freehold 670

By BLAKE, HADDOCK, & CARPENTER.

West Wickham—The Swan Inn, freehold 3,250
The Residence called "Cotleigh House," freehold 1,500

By PENNEY & CLARK.

Westminster—29, Marsham-street, freehold 870

By NEWBON & HARDING.

Highbury—27, Highbury-place, freehold 1,000
Lambeth—5 and 7, Westminster Bridge-road, freehold 1,250
32 to 42 even, Lambeth-road, freehold 4,250

By C. C. & T. MOORE.

St. George's-in-the-East—58, Sheridan-street, 7 years, ground-rent 2*l.* 16s. 3d. 35
Stepney—26, Belgrave-street, 23 years, ground-rent 1*l.* 300
Bow-road—No. 52, term 68 years, ground-rent 6*l.* 830
Hallsville—43 to 49, odd, Brunell-street, freehold 505
5 to 8, Fulton-street, freehold 620
Camberwell—231, Beresford-street, 65 years, ground-rent 4*l.* 330
Mile-End—6 and 8, Varden-street, 22 years, ground-rent 6*l.* 7s. 6d. 330
2, Rutland-street, 22 years, ground-rent 2*l.* 2s. ... 170

By WILKINSON & SON.

Brighton—121, Preston-road, freehold 635

MAY 15.

By WALKER & RUNTZ.

Commercial-road, E.—No. 427, term 8 years, ground-rent 5*l.* 400
4, Exmouth-street, term 8 years, ground-rent 7s. 185
Hackney—79, King Edward's-road, 51 years, ground-rent 2*l.* 2s. 8d. 545

By ROBINSON & RUDKIN.

Brixton—7, Brixton-rise, 52 years, ground-rent 20*l.* £1,700
Edgware-road—No. 149, term 35 years, ground rent 16*l.* 10s. 1,300
No. 153, 35 years, ground-rent, 16*l.* 10s. 1,290
13, Oxford-terrace, 37 years, ground-rent 10*l.* 10s. 1,195

By BAKER & SON.

Bermondsey—Ground-rents of 1,050*l.* a year, reversion in 65 years 28,200
Camberwell—Ground-rent of 24*l.* a year, reversion in 4 years 550

MEETINGS.

THURSDAY, MAY 28.

Society of Telegraph-Engineers and Electricians.—(1) Mr. B. J. Farquharson on "Ship-lighting by Glow-lamps, embedying Results of Trials on H.M.S. *Colossus*." (2) Mr. J. N. Shoolbred on "Electric Lighting at the Forth Bridge Works." 8 p.m.

FRIDAY, MAY 29.

Architectural Association.—Special Business Meeting. 7.30 p.m.

SATURDAY, MAY 30.

Architectural Association.—Visit to Buchan Hill Mansion, Crawley, Sussex (Messrs. Ernest George & Peto, architects). Train from Victoria, 2.30 p.m.

Civil and Mechanical Engineers' Society.—Visit to the new Blackfriars Railway Bridge. 2.30 p.m.

Miscellanea.

Inventors' Institute.—On Monday evening last, at a meeting of this Institute, Mr. C. E. Spagnoletti in the chair, a paper "On Electric Tram-Cars" was read by Mr. A. Reckenzaun. The author said that whilst a single electric tram-car only existed in this country, a paper on the subject might be thought premature. This solitary example is, however, the latest and only practical form. After a comparison of horse, steam, and compressed-air traction with electrical traction, the difference between the electric tram-cars and electric tramways and railways was pointed out to be, that, whereas in electric tramways the energy is conveyed from the generating station to the rails or other conductor communicating with the motor which turns the car-wheels, the electric car carries its own energy within itself, and is quite independent of external influence, and the car can travel over any road or rail for whatever system, ordinary or specially designed. The Electrical Power Storage Company having acquired the patents of Sellon, Swan, & Volckmar in addition to Faure's, have step by step improved the mechanical details of the storage batteries, until they have arrived at a thoroughly practical article,—but the prejudices created in the public mind by the early failures have to be overcome. The cell for the tram-car is contained in a lead-lined strong teak box. In it are placed twenty-one lead plates, weighing together 26 lb., including terminals and fittings. Sixty such cells, weighing one and a quarter ton, are required to propel a car with forty-six passengers for about two hours over a road with ordinary gradients, curves, and sixty stoppages per hour. A diagram was shown, representing the car which has been running at Millwall and Battersea. The electric motor has to convert the electric current into mechanical power. For tram-car propulsion, it is absolutely necessary that the motor should have high efficiency, and, at the same time, be of small dimensions and light weight. The author's machine has, he contends, these qualifications. For the car there are two motors, each capable of working up to nearly nine horse-power and weighing 420 lb.; each motor is carried separately upon a small bogie, in such a way that each bogie forms a small locomotive-engine upon which the car rests. One axle of each bogie is a driving-axle; thus are actuated four small driving-wheels. The speed of the motors is high, about 1,000 revolutions per minute when the car is running at seven miles an hour. Thus it is necessary to introduce reducing gear between the motor shaft and the driving-axle. Variation of speed and power is obtained by means of a compound switch, which arranges the motor circuits so that the machines shall work in series, in parallel or singly.

The late Mr. Louis Haghe.—The residence at Stockwell of this well-known artist, whose death we recorded not long ago, was sold by Messrs. Barker & Neale at the Mart, on the 19th inst. The property in question, which is freehold, and known as "Fern Lodge," 103, Stockwell-road, consists of an old-fashioned family residence, with well-lighted studio, and large garden in the rear, the whole covering an area of 26,500 square feet. It realised 1,990*l.*

"The Paragon Theatre of Varieties."—Such is the title of the new building which has been erected in the Mile End-road on the site of Lusby's Music Hall, which was destroyed by fire some sixteen months ago. The new building and its annexes cover more than an acre of ground. The following are some of the dimensions:—From the line of footlights to the back of the auditorium measures nearly 100 ft.; the hall proper is 60 ft. in width, with a promenade on each side of 20 ft., making a total width of 100 ft.; the height from floor to top of the domed ceiling is 60 ft., and from the line of footlights to the balcony and gallery front is from 58 ft. to 60 ft.; the stage opening is 34 ft. wide by the same number of feet in height; the depth is 64 ft., the height to gridiron is 60 ft., with a cellarage depth of nearly 20 ft., and a width across of about 100 ft. The principal entrance is from the Mile End-road. At the end of the entrance-passage is found the crush-room. Through this is seen the grand promenade, an apartment leading to the foyer, which is fitted with marble bars, a grill, &c. The foyer leads straight away to the promenade which surrounds the ground-floor of the theatre, and which, being a few feet higher than the floor whereon the seats are fixed, enables a spectator who is promenading around to have an uninterrupted and perfect view of the stage. The hall proper consists of the gallery, the balcony with twelve private boxes on a separate level, and, on the lowest level, the pit, stalls, and fauteuils. The gallery will accommodate about 800 or more. The architect of the building, the designer of all the decorative and other ornamental details, and the planner of the stage, is Mr. Frank Matcham, of Bedford-row. Messrs. Merryweather & Son supplied the hydrants and fire-extinguishing apparatus; the gasfitting has been executed by Messrs. Vaughan & Brown; the upholstery by Messrs. Lyon & Son; the scagliola marble by Messrs. Bellman & Ivey; the marble work of bars by Mr. Salter; and the whole of the decorative plastering and painting by the Frame Makers', Gilders', and Decorators' Association. The general superintendence of the works has been in the hands of the architect and Mr. Webber, the foreman; Mr. Snow being the clerk of the works. The building was opened to the public on Thursday evening last.

Wind Velocities.—At the usual monthly meeting of the Royal Meteorological Society, held on Wednesday evening last, at the Institution of Civil Engineers, Great George-street, Westminster, Mr. R. H. Scott, F.R.S., President, in the chair, the following were among the papers read:—(1.) "Velocities of Winds and their Measurement," by Lieut.-Col. H. S. Knight, F. R. Met. Soc. The author, after describing the various ways of ascertaining the direction and velocity of the wind, makes several suggestions for the improvement of Robinson's anemometer. (2.) "On the equivalent of Beaufort's Scale in Absolute Velocity of Wind," by Dr. W. Koppen, Hon. Mem. R. Met. Soc. The author refers to Mr. C. Harding's paper, read before the Society in December last, on the anomalies in the various wind velocities given by different authors as equivalents for the numbers in Beaufort's scale, and, as illustrating the point, calls special attention to the want of agreement between the velocities obtained by Mr. Scott and those subsequently obtained by Dr. Sprung, and confirmed by himself.

Competition: St. James's (R.C.) Church, Manchester-square.—The (R.C.) Church of St. James, in Spanish-place, Manchester-square, originally the Chapel of the Spanish Embassy, is to be rebuilt on the opposite side of George-street. Sixteen R.C. church architects have been asked to submit designs, and most of them have accepted the invitation. The church only, exclusive of the adjoining buildings and of all furniture, is to cost 20,000*l.*, and is to be 158 ft. long and 80 ft. wide, and to afford accommodation for five altars and 2,000 worshippers, 500 of whom may be provided for in the triforia. Besides the church, the buildings are to include a confraternity chapel and a committee-room in the crypt, two sacristies, a tower, and a presbytery. The style is to be "Early English Gothic as practised in the twelfth and thirteenth centuries," and it is hoped that the church will be characterised by solidity, simplicity, stateliness, and spaciousness. The architectural assessor is Mr. Fergusson, but it seems his functions are confined to advising as to the architectural merits of the designs.

Neglected Nuisances and Typhoid.—If any point in the history of typhoid fever may be held to be established, it is the constant and essential relation which exists between that disease and the presence of sewage impurities. We cannot, therefore, but strongly condemn the blind neglect of cleanliness in a case which affords us the latest recorded illustration of this truth. The circumstances were the following:—An inspector of nuisances at Darlaston was required by the Local Board of Health, at the instance of the medical officer of the Board, to clear away an accumulation of sewage matter at the back of a house in which there were four cases of typhoid fever. The medical officer and the Board in so doing were of course only taking the first essential step in the treatment of disease, — the removal of its cause. The inspector, however, had other views. He saw no need for interference, and left matters as they were. Under such conditions no remedies could be expected to effect their purpose, and we are not surprised to learn that out of four persons attacked by the disease three died, an unusually high mortality for enteric fever. It must be evident to all that the censure which this official justly incurred at the hands of his employers is but a light one, unless it implies an assurance that like offences will be prevented in the future.—*Lancet.*

The Preservation of Marble Monuments.—At the last monthly meeting of the Vienna Society of Art Industry, Herr Bucher discussed the question, first raised at Munich, and subsequently taken up at Berlin, whether monuments of marble should be covered up during the winter months. He recapitulated the opinions and observations made by Professor von Pettenkofer, Her Pecht, and the *Deutsche Bauzeitung*, from which it appeared that the real enemy of marble was the deposition of sulphurous acid from the atmosphere, which gradually changed the surface of the marble into gypsum, which was in its turn dissolved by moisture, and permitted destruction by frost, &c. Monuments would consequently have to be washed, and without this procedure even covering them up would offer no protection. The lecturer then pointed to the perfect preservation of the marble sarcophagus brought from Asia Minor by Count Lanckoronski, and now in the Austrian Museum, and finally threw out the suggestion whether the polishing of marble would not offer after all the best protection, not merely on account of the smoothness of the surface, which did not facilitate the accumulation of dirt, but because polishing renders the surface more dense.

Sales of Building Land at Norbiton and Walthamstow.—During the present week Mr. Richard J. Collier has held two successful sales of building land at Norbiton and Walthamstow. The sale on Monday evening consisted of several sites on the Norbiton Park Estate at New Malden, Surrey, the sale taking place at the Norbiton Park Hotel. The estate, which belongs to the London and Suburban Land and Building Company, has for some time past been lying idle, no sales having taken place for the last three or four years. There was a numerous attendance at the sale, and several of the sites, which have frontages of 30 ft., with a depth of from 190 ft. to 220 ft. were sold, the total proceeds of the sale amounting to about 1,700*l.* On Tuesday evening Mr. Collier held another sale of similar property, forming a portion of the Church-hill House Estate at Walthamstow. The sale took place at the Tower Hotel, Hoe-street, Walthamstow, when sixty lots were submitted to competition, the several lots having frontages of 18 ft., and a depth of 100 ft. Of the entire number of lots offered fifty were sold, realising an aggregate sum of about 3,200*l.*

Civil and Mechanical Engineers' Society.—A party of members of this Society visited the works of the new Hammersmith and Putney bridges on Saturday last, by the kind germission of the engineer, Sir Joseph Bazalpette, C.B. Messrs. Dixon & Thorne are the contractors for the Hammersmith Bridge, and Messrs. John Waddell & Sons are the contractors for the Putney Bridge. These visits proved most instructive and interesting, particularly the one to Putney, as in these days of iron construction it is seldom that an opportunity occurs for witnessing the erection of a masonry bridge upon the scale to be seen there. The constructive details of this bridge were very fully illustrated in the *Builder* for Jan. 3 last.

Portraits of Handel.—In connexion with the coming Handel Festival, the editor of *The Magazine of Art* has arranged for the publication of an article by Mr. R. A. M. Stevenson, on "Handel and His Portraits." Its purpose is partly musical and biographical, and partly one of art criticism. It will be illustrated with engravings of the "Chandos Portrait," painted by Thornhill, from the Fitzwilliam Museum; of the fine Grafoni, in the same collection; of Mr. Henry Littleton's famous Roubiliac,—the "Vauxhall Statue," as it is called; of Zincke's graphic and interesting miniature, now the property of Mr. H. B. Lennard; of the engravings by Schmidt, which Hawkins thought the best likeness of all; and (by permission of Earl Howe) of the full length, painted by Hudson, for Charles Jennens, the librettist of "Messiah," and from the first an ornament of the "Messiah Room" at Gopsall.

Zinc Roofing.—The various work in zinc to the roofs of the Hôtel Métropole, as tiling, dormers, lunettes, mouldings to hips, curbs, &c., has been executed by Messrs. Fredk. Braby & Co., of the Euston-road, London. These manufacturers have devoted special study to the formation of zinc tiles, both square and curved. The difficulty regarding large zinc sheets in allowing for expansion and contraction is overcome by the combination in tiling of small pieces of zinc with peculiar lappage designed to exclude rain and promote security of fixture (above, below, and at sides), so as to resist the most violent gales. Above 8,000 ft. super. of the square-shaped zinc tiles interlocking diagonally, and 10,000 ft. of those curved, are used in the immense expanse of roofing, besides nearly 5,000 ft. super. laid in sheets, and above 200 zinc dormers and lunettes.

Liverpool Water-colour Society.—The Liverpool Society of Painters in Water Colours have, with the permission of the Corporation Arts Committee, secured two of the finest rooms at the Walker Art Gallery in which to hold their spring exhibition, viz., the first large room of the new addition, where the fountain will be in play; also, the large room in which the collection of the Royal Water-Colour Society was shown at the last autumn exhibition. They have also thrown the exhibition open to outsiders, several special invitations having been sent to the members of the Royal Water-Colour Societies and other artists of the country and principality, many of whom have sent works. The exhibition opened to the public on Monday last. The list of exhibitors includes some well-known names.

Another Thames Bridge.—On Saturday the Teddington Local Board issued a public notice inviting tenders for the erection of a suspension bridge over the river Thames at Teddington, and a lattice girder foot-bridge over the lock-cut adjoining the same, according to drawings and specifications prepared by Messrs. Pooley & Thompson, engineers. The project has been approved by the Thames Conservators.

TENDERS.

For the erection of the National Agricultural Hall, Kensington. Mr. Henry E. Coe, architect. Quantities by Messrs. Franklin & Andrews:—

Trollope & Son	£152,952 0 0
W. Brass & Son	149,477 0 0
Holland & Hannen	141,380 0 0
Hall, Beddall, & Co.	139,320 0 0
Kirk & Randall	139,000 0 0
Perry & Co	134,590 0 0
Lucas & Son (accepted)	131,573 0 0

For the erection of a house at Ascot, Berkshire, for Mr. Chas. Stonor. Messrs. Ernest George & Peto, architects. Quantities by Messrs. Stoner & Sons:—

Wall	£9,995 0 0
Hall, Beddall, & Co.	9,993 0 0
Nash	9,938 0 0
Brass	9,715 0 0
Bywaters	9,661 0 0
Longley	9,604 0 0
Higgs & Hill	9,438 0 0
Peto Bros.	9,174 0 0
Roberts	9,054 0 0
Stevens & Bastow	8,996 0 0
Stimpson & Co.	8,829 0 0
J. O. Richardson	8,733 0 0
Goddard	8,649 0 0
Watson	8,611 0 0

For pulling down and rebuilding shop premises, No. 30, Great Portland-street, Oxford-street, for Messrs. Kettle & Messenger. Mr. T. G. Langridge, surveyor, 7, Craven-road:—

Langridge & Sons	£1,964 0 0
Manning	1,884 0 0
Oldrey	1,794 0 0
Greenwood Bros.	1,697 0 0

COMPETITIONS AND CONTRACTS.

Epitome of Advertisements in this Number.

COMPETITIONS.

Nature of Work.	By whom required.	Premium.	Designs to be delivered.	Page.
Undercliff Drive and Promenade, &c.	Bournemouth Com.....	200 gs., 100 gs., & 50 gs.	August 5th	ii.

CONTRACTS.

Nature of Work, or Materials.	By whom required.	Architect, Surveyor, or Engineer.	Tenders to be delivered.	Page.
Steam-Pump and Vertical Boiler, &c.....	Mrkt Weightn Wtr Co.	J. F. Fairbank.....	May 27th	xiii.
Granite, Ballast, Hoggin, and Flints	Hackney Board of Wks	J. Lovegrove.....	do.	ii.
Paving and Kerbing Works	Hendon Local Board ...	*Official*	May 28th	ii.
Infirmary, Washhouses, and Laundry.....	Cirencester Union	do.	do.	xiv.
Public Hall, Offices, &c.	Portsmouth Gladstone Buildings Co., Lim....	H. P. Foster.....	do.	ii.
Whitewashing, Colouring, Painting, &c.	War Department.....	*Official*	May 29th	ii.
Earth and Concrete Carriers, and other works	Walthamstow Lcl. Bd.	G. B. Jerram	do.	xiii.
Wooden Troughing, Staging, &c.	do.	do.	do.	xiii.
Cast-Iron Pipes	Hailsham Water Co. ..	*Official*	May 30th	xiv.
Painting, &c., Repairs	Met. Asylums Board ...	A. & C. Harston	June 1st	xiii.
Repairing and Re-painting Blinds.....	do.	do.	do.	xiii.
Making-up Carriageway	Hornsey Local Board...	T. De Courcy Meade ...	do.	ii.
New Street Works	Vestry of St. Giles, Camberwell.....	*Official*	do.	ii.
Water-Closets, Alterations to Windows, &c....	Whitechapel Union.....	W. A. Longmore	June 2nd	xiii.
Painting Barracks.....	War Department.....	*Official*	do.	ii.
Wrought-Iron Fencing, &c.	Southend Local Board	A. Cayton	do.	xiv.
Kerbing and Channelling	Lewisham Brd. of Wks.	*Official*	do.	xiii.
Tower Clock.....	Leeds Union	do.	do.	ii.
Bothy and Tool Shed	Met. Board of Works	do.	do.	ii.
Scavenging, Street Waterings, &c.	Westmlnstr Bd. of Wks.	G. R. W. Wheeler	do.	xiii.
Tar Paving	do.	do.	June 3rd	xiii.
Wood Paving	do.	do.	do.	xiii.
New Workhouse Buildings.....	Grdns. Knighton Union	Jones & Parke	do.	ii.
Construction of Reservoir	Dewsbury, &c., Water-works Committee	Bateman & Hill	do.	ii.
Breeze	Commercial Gas Co. ...	*Official*	June 5th	ii.
Alterations to New Post-Office, Chesterfield...	Com. of H.M. Works ...	do.	June 6th	ii.
Painting and General Repairs, Herne Bay.....	Sth. Metro. Sch. Dist.	do.	June 8th	xiii.
Making-good Streets.....	Claines Local Board...	A. H. Parker	June 9th	ii.
Boiler and House, Steaming-Pans, &c.	St. Asaph Union	*Official*	June 10th	xiv.
Alterations and Additions to Malt Houses ...	P. Phipps & Co., Lim.	H. Stopes & Co.	do.	xiii.
Fog Bells and Machinery to Lighthonses	Dublin Port & Dcks Bd.	B. B. Stoney.....	do.	xiii.
Cleansing and Watering	Bristol U. S. A.	*Official*	July 1st	xiv.

For the erection of a warehouse, Rockingham-street, Newington. Messrs. Newman & Newman, architects. Quantities not supplied :—

J. K. Coleman	£2,970 0 0
Colls & Sons	2,878 0 0
B. Wells	2,790 0 0
W. Shepherd	2,790 0 0
Hoare & Son	2,773 0 0
W. Downs	2,733 0 0
Balaam Bros.	2,700 0 0
W. Shurmur	2,547 0 0
Canning & Mullins (accepted)	2,433 0 0

Accepted for alterations, repairs, &c., to warehouses and offices, Nos. 4, 5, 6, and 7, Great St. Thomas Apostle, Queen-street, E.C., for the District Railway Company. Mr. Frank Job Chambers, architect :—

George Shaw	£2,614 0 0

For a semi-detached dwelling-house, in the Polygon-road, Southampton. Mr. S. Eveland Isted, architect, Southampton :—

J. W. Rowland & Sons	£508 0 0
S. Stevens & Sons	486 0 0
W. T. Scorey	448 0 0
R. B. Martin (accepted)	423 0 0

[Architect's estimate, 432*l.*]

For the erection of a new church, at Llanvair, Carmarthenshire. Mr. E. H. Lingen-Barker, architect, Hereford :—

S. Jenkins, Caegurwen	£764 0 0
D. Rees, Ystalyfera	756 0 0
B. Davis, Llandilo	675 0 0
J. Thomas, Old Star	669 0 0
C. Edwards, Leominster (accepted)	560 0 0

For two houses at Honor Oak, for Mr. E. J. Powell. Mr. Alfred Howard, architect. No quantities :—

Harbrow	£1,291 0 0
Roberts	1,173 0 0
A. White & Co.	979 0 0
Bowyer	936 0 0
Clements	875 0 0
Scholfield	780 0 0

For private residence and stabling at Streatham Common, London, for Mr. C. Meigh. Mr. Jesse Christian Hukins, architect, Bank-chambers, Westbourne-grove, Bayswater :—

	House.	Stabling.
Steer	£6,340 0 0	£900 0 0
Lorden & Sons	5,979 0 0	449 0 0
Ockenden	5,519 0 0	656 0 0
Bowyer	5,463 0 0	687 0 0
Cowland & Co.	5,327 0 0	430 0 0
Deacon & Co.	5,062 0 0	634 0 0
Turtle & Appleton	4,486 0 0	688 0 0
Bray & Pope*	4,308 0 0	635 0 0

* Accepted for house.

For new business premises, Westbourne-grove, Bayswater. Mr. J. Christian Hukins, architect, Bank-chambers, 76A, Westbourne-grove, Bayswater. For a portion of the work only :—

Allen & Son	£1,900 0 0
Bray & Pope	1,670 0 0

Accepted for alterations and additions to Ambleside, Malden, Surrey, for Mr. J. Pascall. Mr. W. H. Woodroffe, architect :—

J. Saunders	£316 0 0

For main sewerage and works connected therewith, at Penrhyndendraeth. Mr. Thomas Roberts, A.M.Inst.C.E., engineer :—

White & Owens, Aberystwith	£1,696 14 0
Griffiths, Criccieth	1,368 18 6
Mathews, Criccieth	1,327 0 0
Owen, Portmadoc	1,284 0 0
Thomas, Bangor	1,281 5 0
Davies, Portmadoc (accepted)	1,240 0 0

[Engineer's estimate, £1,381. 16s. 4d.]

For the erection of factory in the Holloway-road, for Mr. A. Monk, organ-builder :—

Lidstone	£1,840 0 0
Ridout	1,797 0 0
Paine Bros.	1,693 0 0
Chant	1,450 0 0
Collins	1,440 0 0
Scarborough	1,395 0 0
Ward & Lamble	1,325 0 0
H. Harper & Co.	1,299 0 0
G. Parker	1,298 0 0
Norris & Luke	1,190 0 0
Thomson	945 0 0

For the erection of twelve cottages at Broadwater, Worthing, for Mr. J. B. Knowles. Mr. R. W. Moore, architect :—

Bridger & Son	£1,920 0 0
Stanbridge	1,824 0 0
Hollands	1,790 0 0
Hillyer	1,707 0 0
Duffield	1,560 0 0
Sawle	1,548 0 0
Herbert	1,520 0 0
Woolven	1,500 0 0
Marner	1,488 0 0
Wright (accepted)	1,452 0 0

Accepted for building warehouse in Ewer-street, Southwark, for Mr. Church. Mr. T. Willis, architect:—

J. A. Taylor	£392 0 0

[No competition.]

For building residence, stables, coachman's house, garden walls and lodge, at Brynwern, Breconshire. Mr. Stephen W. Williams, architect. Quantities by the architect :—

E. Davies & Son, Newtown	£6,140 8 0
W. Bowers & Co., Hereford	5,845 15 0
John Williams, Knighton	5,671 0 0
D. C. Jones, Gloucester	5,613 0 0
John Jones, Ystradmewieg	5,350 19 0
C. Edwards, Leominster	5,126 0 0
Treasure & Son, Shrewsbury	4,642 16 3
R. Price, Shrewsbury (accepted)	4,620 0 0

For the erection of new Mission Chapel, Hackney Wick. Mr. J. Weir, architect :—

Lathey Bros.	£1,594 0 0
Jarvis	1,531 0 0
J. D. Hobson	1,395 0 0
W. Shurmur	1,395 0 0
H. L. Holloway	1,300 0 0

For alterations, &c., to the Seabright Music-hall, Hackney-road. Mr. J. G. Buckle, architect :—

W. Shurmur	£1,440 0 0
Steel Bros.	1,390 0 0
Lang & Son	1,350 0 0
J. H. Cox	1,227 0 0
Searchfield & Son	1,058 0 0

For new schools, Broomsleigh-street, Hampstead, for the London School Board. Mr. T. J. Bailey, architect :—

T. Boyce	£12,100 0 0
J. Goodman	11,997 0 0
W. Johnson	11,490 0 0
Patman & Fotheringham	11,418 0 0
W. Shurmur	11,300 0 0
C. Cox	11,299 0 0
J. Grover & Son	11,271 0 0
J. Holloway	11,203 0 0
Wall Bros.	11,197 0 0
Scrivener & Co.	10,991 0 0
J. Reading	10,978 0 0
E. C. Howell & Son	10,885 0 0
S. J. Jerrard	10,879 0 0
Stimpson & Co.	10,788 0 0
T. Oldrey	10,738 0 0
Kirk & Randall	10,687 0 0
Atherton & Latta	10,650 0 0
C. Wall	10,550 0 0

For the enlargement of schools, Collingwood-street, Tower Hamlets, for the London School Board. Mr. T. J. Bailey, architect :—

Holloway Bros.	£2,994 0 0
Larke & Son	2,991 0 0
J. Holloway	2,942 0 0
J. Goodman	2,850 0 0
F. & F. J. Wood	2,797 0 0
W. Johnson	2,712 0 0
Patman & Fotheringham	2,700 0 0
S. Hobson	2,690 0 0
W. Shurmur	2,685 0 0
T. Oldrey	2,682 0 0
Wall Bros.	2,671 0 0
E. C. Howell & Son	2,667 0 0
S. J. Pritchard	2,660 0 0
Scrivener & Co.	2,625 0 0
S. J. Jerrard	2,588 0 0
C. Cox	2,511 0 0
Stimpson & Co.	2,444 0 0
Kirk & Randall	2,355 0 0
Atherton & Latta	2,200 0 0

For alterations and additions to Nos. 46 and 48, Stroud Green-road. Mr. W. Smith, architect :—

Mattock Bros.	£411 0 0
Hurst	400 0 0
Larke & Son	390 0 0
Durnford & Langham	389 0 0
Wilkinson Bros.	382 0 0
Stevens Bros.	380 0 0
Clarke Bros.	330 0 0
Hewitt	375 0 0
J. O. Richardson	340 0 0

For new Young Men's Christian Association building, Ogle-road, Southampton. Mr. W. H. Mitchell, architect :—

Stevens & Sons	£1,439 0 0
Brinton and Born	1,416 0 0
Dyer & Son	1,416 0 0
Rowland & Son	1,389 0 0
Bull, Sons, & Co.	1,344 0 0
Crook (accepted)	1,319 0 0

[All of Southampton.]

For proposed Congregational church, George-lane, Woodford, Essex. Mr. Thomas Arnold, Basinghall-street, architect. Quantities by Messrs. Curtis & Sons :—

Higgs & Hill	£5,680 0 0
Hearle & Son	5,650 0 0
Brown, Son, & Blomfield	5,501 0 0
J. & C. Bowyer	5,397 0 0
Harris & Wardrop	5,353 0 0
A. Reed	5,333 0 0
J. J. Robson	5,241 0 0
J. Morter	4,993 0 0
Dove Bros.	4,975 0 0

Accepted for rebuilding the Bricklayers' Arms public-house, at the corner of Fordham-street and Settles-street, Commercial-road, E., for Mr. W. T. Wackrill. Mr. J. T. Newman, architect, 2, Fen-court, E.C. Quantities by Messrs. Curtis & Sons :—

A. Reed, Stratford	£1,497 0 0

For the erection of medical superintendent's house and registrar's office, Harrow-road, for the Guardians of Paddington. Messrs. A. & C. Harston, architects, 15, Leadenhall-street. Quantities supplied :—

Belham & Co.	£3,993 16 3
Feltham Bros.	3,748 0 0
J. Angood	3,740 0 0
Taylor & Grist	3,705 0 0
Harper & Co.	3,557 0 0
Haynes	3,551 0 0
J. Garrud	3,507 0 0
W. Johnson, Wandsworth Common*	3,364 0 0
W. Marten	3,300 0 0

* Accepted.

For the completion of medical superintendent's house, lodge, &c., at the Western Hospital, Sesgrave-road, Fulham, for the Metropolitan Asylums Board. Messrs. A & C. Harston, architects, 15, Leadenhall-street. Quantities supplied :—

Proctor	£3,692 0 0
Chafen	3,620 0 0
Balaam Bros.	3,316 0 0
Dicksee & Dicksee	3,150 0 0
J. Angood	3,059 0 0
H. Smith & Son	2,979 0 0
J. Garrud	2,973 0 0
W. Johnson	2,852 0 0
Harper & Co.	2,844 0 0
G. Lyford	2,811 0 0
Pack Bros.	2,761 0 0
Feltham Bros. Burnaby-street, Chelsea (accepted)	2,645 0 0

For painting works at the Wandsworth Infirmary, for the Board of Guardians of Wandsworth and Clapham Union :—

Turtle & Appleton	£283 0 0
Ellis	283 0 0
Hancock	275 0 0
Hammond	268 0 0
Stewart	264 0 0
Derby	237 0 0
Lemmon, Ascot (accepted)	231 0 0

For alterations and repairs to 4, Bennett-street, Tottenham-court-road, for Mr. J. Bleckly Smith. Mr. C. V. Stevens, surveyor, 27, Southampton-buildings, Chancery-lane:—

T. Taylor	£230	0	0 !
Brown	228	0	0
Gould & Brand	227	0	0
Arnold	202	0	0
W. Crockett	200	0	0
Norris & Luke	175	0	0
J. Weikmig	130	0	0
E. Parker	120	0	0
Wood & Harris	120	0	0
Sanders & Langley	120	0	0
E. Poulton	117	10	0
Groom, Rowland, & Co.	117	0	0
Desatly & Chard	115	0	0
J. Wyard	105	0	0
W. Feary	100	0	0
Hale & Twitchen	100	0	0
Chas. Patterson (accepted)	95	0	0
F. E. Everitt	87	0	0
F. Roberts	87	0	0
T. Riches	74	0	0
Dunkley	67	15	0
Beach & Co.	67	5	0
Hindle	66	15	0 !

For alterations to Nos. 268 and 270, Edgware-road, for the Hand-in-Hand Insurance Society. Mr. Robert Willey, architect, 66, Ludgate Hill:—

Clarke & Bracey, London	£691	0	0
J. Woodward, London	633	0	0
Penny & Co., Ealing	598	0	0
Jones & Sons, Ealing (accepted)	485	0	0

For making-up carriageway of Ossian-road, Stroud Green, for the Hornsey Local Board. Mr. T. de Courcy Meade, engineer and surveyor:—

W. Porter, Hackney	£718	0	0 !
J. Pizzey, Hornsey	595	0	0
T. Adams, Tower-chambers	577	9	0
C. Taylor, Upper Holloway	550	0	0
F. A. Jackson & Sons, Finsbury Park	528	0	0
Aspinall & Son, Hoxton	252	0	0
E. Heard, Hoxton	510	0	0
W. T. Williamson, Green-lanes	494	0	0
Dunmore, Crouch-end	479	0	0
Alfred Walker, Upper Holloway	468	9	0
Mowlem & Co., Westminster*	461	0	0
H. R. Treherne & Co., Battersea	289	0	0 !

* Accepted.

For the erection of shelter-houses on the Pier, Bournemouth, for the Bournemouth Commissioners. Mr. R. W. Peregrine Birch, engineer:—

Gibbs & Flew, London	£2,995	0	0
Young & Co., London	2,900	0	0
Treherne, London	2,765	0	0
James, Bournemouth	2,535	0	0
Rosser & Russell, London	2,498	0	0
Lawson & Donkin, Bournemouth	2,400	0	0
Jefferies, London	2,380	0	0
Crook, Southampton (accepted)	2,088	0	0

For the erection of band-stand on the pier, for the Bournemouth Commissioners. Mr. R. W. Peregrine Birch, engineer:—

Perry & Co., London	£388	0	0
Lawson & Donkin, Bournemouth	298	0	0
Cook, Southampton (accepted)	285	15	0
Peckthall, Bournemouth (informal)	274	0	0

For building a new bar and alterations to the White Hart, West Mersea, Colchester, for Messrs. S. T. Daniell & Co., East Donyland. Mr. J. W. Start, architect, Colchester:—

H. Woods, Peldon	£201	4	0
S. Start, Colchester (accepted)	198	14	0

For alterations at the Green Man, Cambridge-road, Bethnal-green, for Mr. F. Cakebread. Mr. Edward Brown, architect, Hanbury-street, Spitalfields:—

Mower	£496	0	0
Awley	480	0	0
Jackson & Todd	475	0	0
Marr	447	0	0
Hawkings (accepted)	389	0	0
Steel Bros.	345	0	0
Plasterer's Work.			
Warne	90	0	0
Pringle (accepted)	69	18	0
Rogers	59	14	0
Gasfitter's Work.			
Christian	68	10	0
Steadman (accepted)	67	0	0

For alterations and additions, to the Pelham Arms, Pelham-street, South Kensington, for Mrs. Porch. Mr. H. J. Newton, architect, 17, Queen Anne's-gate, Westminster:—

Burman	£717	0	0
Gibbs & Flew	608	0	0
Lamble	559	0	0
Walker	527	0	0
Steel, Dalston (accepted)	448	0	0
Pewterer's Work.			
Hellings	55	8	0
Davidson	49	10	0
Heath, Rahere-street, Goswell-road*	45	0	0

* Accepted.

For additions to house at Goring, for Mr. G. Weedon. Mr. J. S. Dodd, architect, Reading:—

Winkworth	£313	11	6
Smallbone	294	15	0
Higgs (accepted)	249	0	0

For new roads on the Goring Building Estate, for Mr. C. L. W. Gardner. Mr. J. S. Dodd, architect, Reading:—

Oliver	£632	0	0
Talbot (accepted)	469	0	0

Accepted for additions to house and shop at Goring, for Mr. Smith. Mr. J. S. Dodd, architect:—

Higgs	£367	0	0

For cottage, bakery, &c., for Mr. C. L. W. Gardner. Mr. J. S. Dodd, architect:—

Smallbone	£629	0	0
A. W. Dodd	618	0	0
T. Higgs	588	10	0
T. Winkworth	518	18	6

For stables, &c., at Goring, for Mr. E. H. Bayldon. Mr. J. S. Dodd, architect:—

Simmonds	£500	0	0

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